DECEMBER, 1919

THE FAR EASTERN REVIEW

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VOL. XV. No. 1

ENGINEERING FINANCE COMMERCE

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Partial List of Contents

Engineering—An Iron Chain Bridge in Yunnan.

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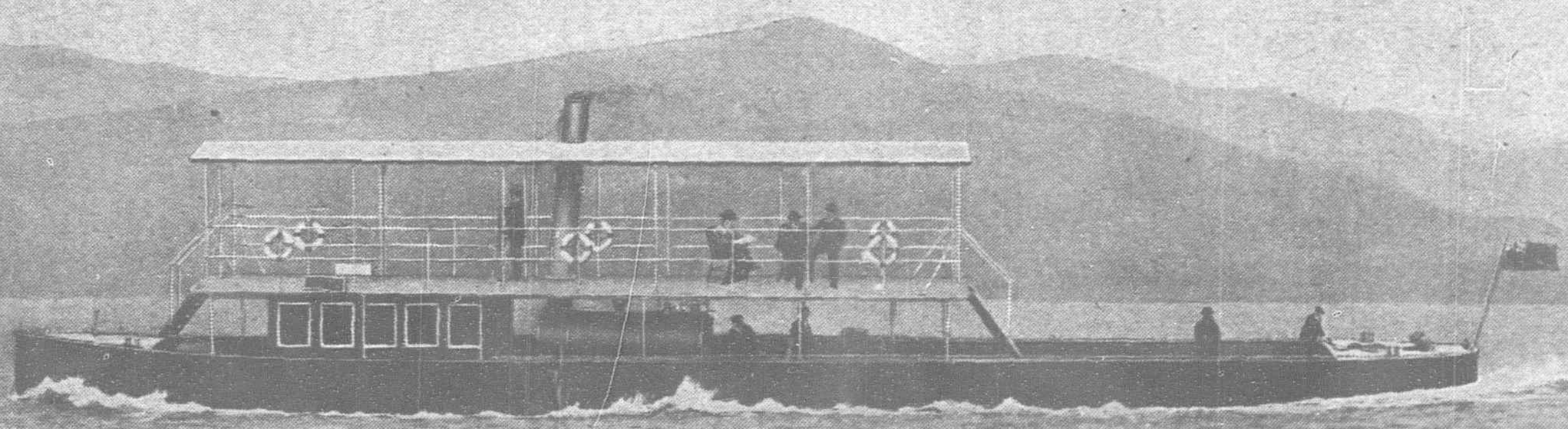

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The Far Eastern Review

ENGINEERING FINANCE COMMERCE

VOL. XV SHANGHAI, DECEMBER, 1919 No. 12

An Engineer's Journey Across Yunnan

Extension of the Burma Railway and Construction of other Lines and Highways a Necessity

By EDWIN W. MILLS, F.R.G.S., Author of "Gold Mining in Korea"

THOUGH Yunnan is the second largest province in the Chinese Republic it is not as widely known as it deserves to be. Mr. Edwin W. Mills, a well-known mining engineer throughout the Far East, the senior partner of the firm of Mills and Manning, Mining Engineers, of Peking, spent the latter half of 1918 in reconnaissance and exploration work in Yunnan, and he points out the great need for better means of transportation than are now employed. Mr. Mills considers that the extension of the Burma railway into Yunnan will enable the great resources of Yunnan to be developed to the highest degree and will make of it a most prosperous province.—ED.

Yunnan, *i.e.*, "Cloudy South," is the south-western province of China, and is bounded on the north by Szechuan, on the east by Kweichow and Kwangsi, on the south by Burma and Tonkin, and on the west by Burma and Tibet.

Though the second largest province of China it is one of the least known. It has an area of approximately 150,000 square miles, and its population is estimated at from 10,000,000 to 12,000,000.

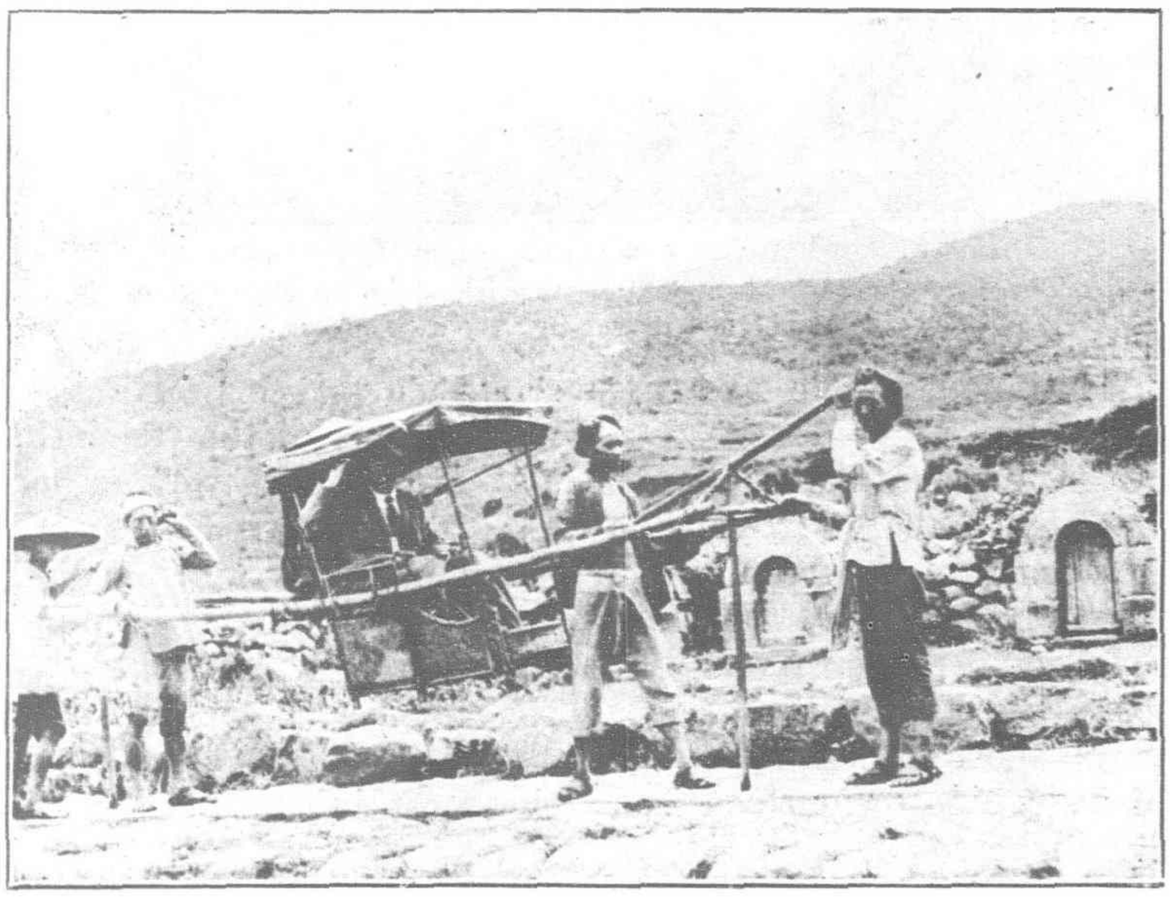
The whole province is extremely mountainous, and an extensive plateau, ranging from 5,000 to 7,000-ft. in altitude, covers most of the eastern portion. This part contains larger plains and lakes than the western. The most marked characteristic of the western section of the province consists of the Mekong and Salween rivers, which flow through steep mountains and precipitous gorges for the greater part of their courses.

Most of the prefectural cities are situated in valley plains, and these plains are thickly inhabited. To this day may be seen districts which have never fully recovered from the devastation and ruin caused by the great Chinese Mohammedan rebellion which began in 1854 and ended in 1873.

The climate is generally healthy, with the exception of the valleys in the south-western portion and along the Tonkin border, which are malarial to a high degree. In travelling across Yunnan, more particularly in the south-western section and through the Chinese Shan states, it was noticed that an exceedingly small number of Chinese live at a lower altitude than 3,500-ft. This is due to the fact that the Chinese of Yunnan are more liable to fever in the valleys and low plains than any other people. The result is that the Shans occupy the low fertile plains of the south-west.

Owing to the generally mountainous character of the country there are no cart roads, and carts are seen only in a few of the cities, as in Yunnanfu and Mengtsze.

Freight and goods of all kinds are conveyed by means of ponies, mules, bullocks and coolies. During the dry season, from the end of October to the beginning of June, steady streams of caravans may be seen travelling along the regular routes from Yunnanfu to Burma, Tibet and Canton.



AUTHOR IN A FOUR-MAN CHAIR ON THE PAVED ROAD FROM HSIAKWAN TO TALIFU; GRAVES ALONGSIDE THE ROAD

Yunnan possesses great resources and large trade possibilities, but these will never be properly and profitably developed until railways are constructed.

The mountainous nature of the country is such that there are no navigable streams and the rough hilly trails are fit only for pack animals.

The five main caravan routes which connect Yunnan with the outer world are:—

(1) Yunnanfu to Bhamo (in Burma) viâ Talifu, Yungchangfu and Tengyueh, a distance of 505 miles, the journey taking from 24 to 28 days.

(2) Talifu to Batang, viâ Likiangfu, a distance of about 360 miles, and takes from 20 to 24 days; this route connects western Yunnan with Tibet.
(3) Yunnanfu to Canton, viâ Paisefu, on the West River, in Kwangsi. The overland journey from Yunnanfu to Paisefu is 355 miles and takes about 20 days. From this point the river is navigable to Canton.
(4) Yunnanfu to Ichang, on the Yangtze River, viâ Suifu; the distance to Suifu is 618 miles and takes from 32 to 36 days.
(5) Talifu to Lashio (in Burma), viâ Hsiakwan, Yunchow and Kunlong Ferry, on the Salween. The distance is about 360 miles and takes from 20 to 22 days.

There is a railway terminus at Lashio, and Bhamo is connected by steamer with another railway terminus at Myithyina. Thus Burma is connected with Yunnan by two principal trade routes.

During the rainy season from June to October all traffic on the Kunlong Ferry-Yunchow section of the southernmost route is suspended, as the road up the Namting valley becomes one continuous series of mud holes which make travelling almost impossible.

On the main caravan route from Yunnanfu to Yungchang en route to Tengyueh and Bhamo, a great portion is paved with irregular stone blocks. As no attempt has been made to keep this trade route in repair sections of the road show no paving at all, and in other places the blocks of stone are missing or scattered and both pack and riding animals find it difficult going.

The roads throughout Yunnan cannot be called roads at all, and especially so during the rainy season; they are simply paths or trails for the passage of men or pack animals. To the Chinese mind apparently a road is any sort of a trail that is at all passable.

The best section of road seen during my trip across Yunnan was from Hsiakwan to Talifu, a distance of eight miles. This is paved with blocks of gneissic rocks which have become worn very smoothly through years of continuous traffic and are very slippery.

The main caravan route between Yunnanfu and Bhamo is kept open throughout the year because the large streams on the way are crossed by bridges, generally of the iron chain suspension type. Were it not for these bridges it would be impossible to cross the Mekong, Salween and Shweli rivers during the height of the rainy season. Most of these bridges are well constructed and are kept up more or less in a fair state of repair. They are built of from nine to fourteen iron chains stretched across and solidly anchored on each side of the river, while the two large suspension chains are securely fastened to piers on either side. Planks are laid on the chains for a roadway, and although the bridges sway considerably they will carry a good load. Periodical inspection of these bridges are made, and whenever necessary huge wooden windlass barrels are used to tighten the chains.

The crying need of Yunnan is better transportation facilities. After a trip down the Namting valley to Kunlong Ferry I am of the opinion that the Burma railway should be extended from Lashio to Kunlong Ferry, and the Yunnan railway from Kunlong Ferry to Yunchow. Eventually this line should be extended to Hsiakwan, which is probably the most important commercial town in Yunnan. The distance from Kunlong Ferry to Yunchow is 145 miles, and from Yunchow to Hsiakwan it is 109 miles. The line from Kunlong Ferry to Yunchow would tap a large area of country with great resources and would bring many important districts within range of Burma.

A ZIGZAG PATH ON THE LEFT BANK OF THE MEKONG
The Mekong runs through gorges with sides so steep that it can only be crossed in very few places

The principal crop in the Namting valley and the surrounding country as far away as Talifu is rice. Wheat, buckwheat, maize and millet are also cultivated to a large degree. Other agricultural products of this south-western district are tobacco, cotton, hemp, sugar-cane, tea, oil-producing seeds, various fruits such as oranges, pineapples, pears, peaches, plums, persimmons, pomegranates, etc., and many different kinds of vegetables.

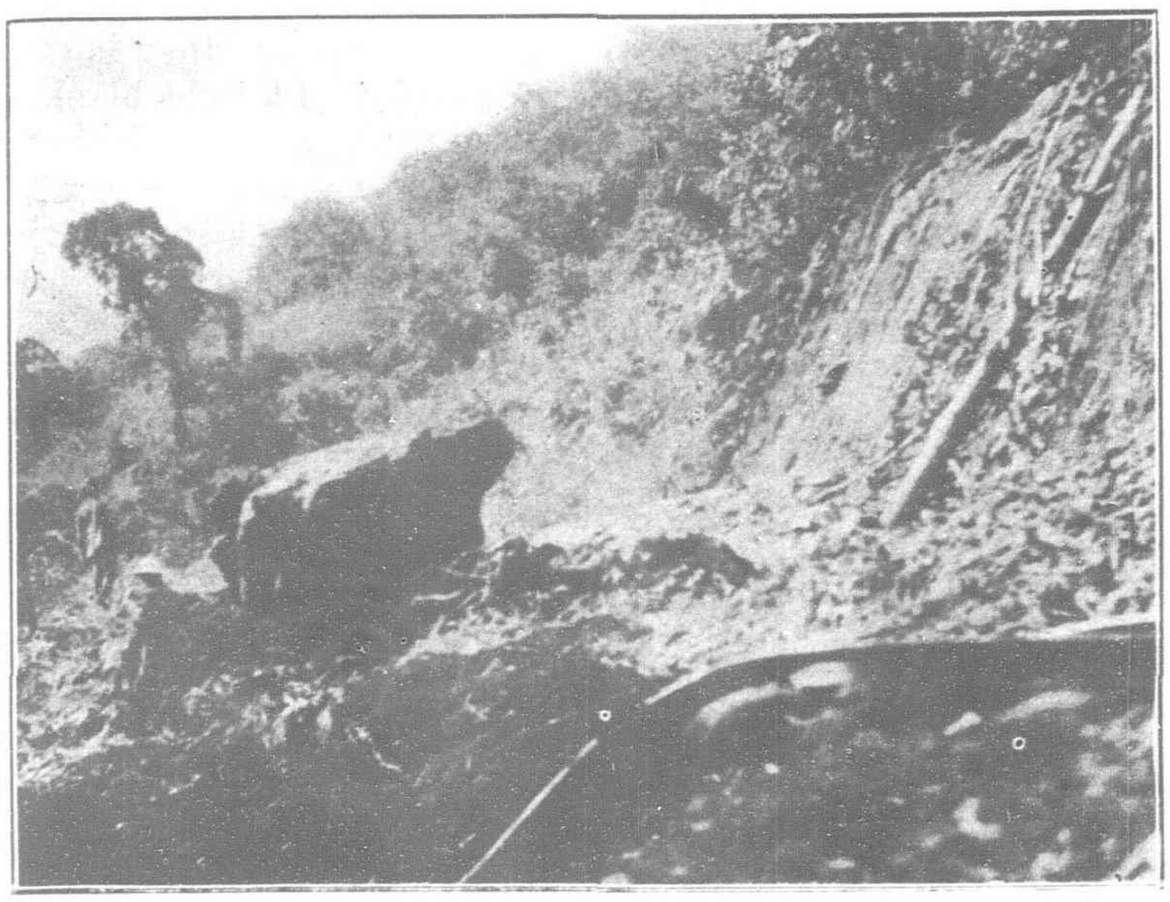
There is a great variety of live stock throughout the entire province, and the districts that would be served by a railway from Kunlong Ferry to Yunchow and Hsiakwan afford great opportunities for the raising on a large scale of sheep, goats, pigs, cows, ponies, mules, bullocks, and buffaloes.

Yunnan has also large mineral resources, and it is known that there are mines in every district. The principal minerals found are copper, lead, silver, zinc, gold, tin, and iron. Coal is also found in a number of places, but is generally of poor quality. Salt is also one of the most important productions of the province, and with better means of transportation the present output could be largely increased.

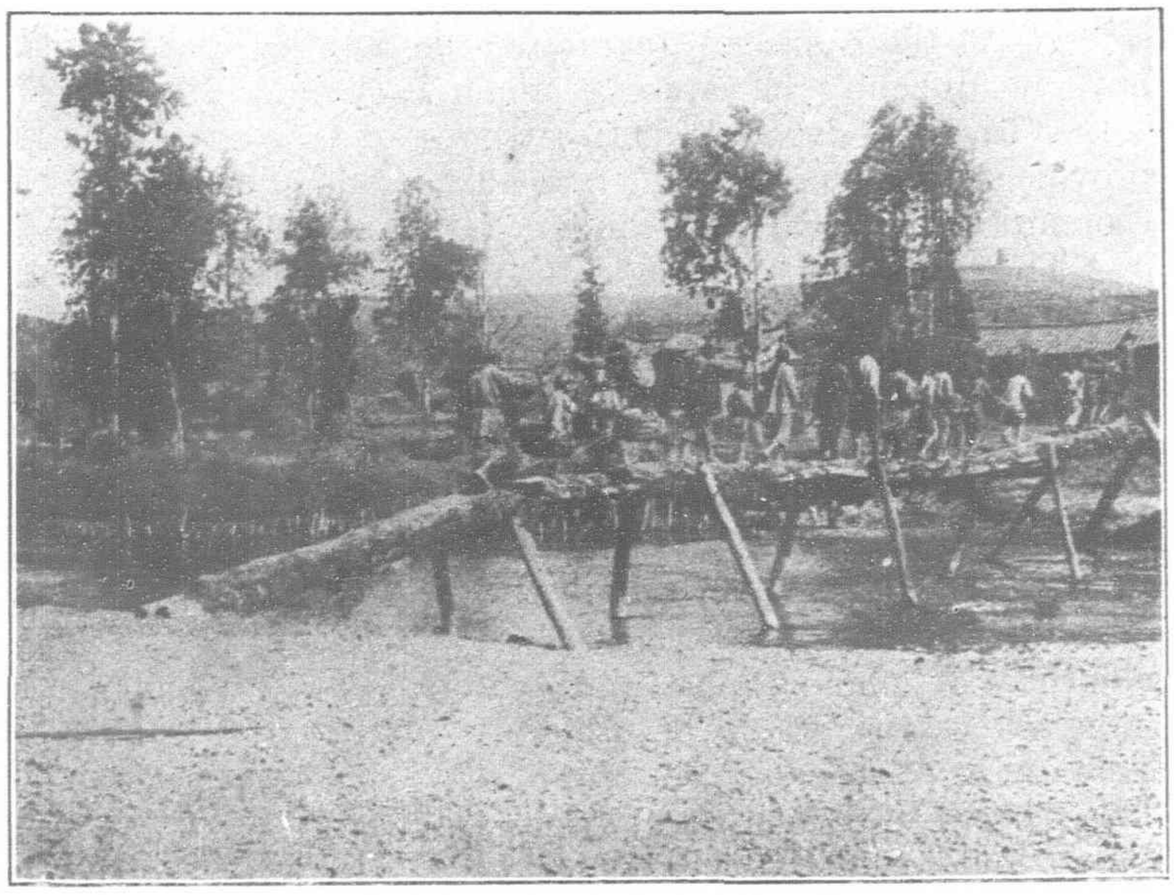
Jade and marble of excellent quality are found in the eastern part of the province.

Exploration work is being carried on under the order of the present provincial government to determine as far as possible the value and extent of the mineral resources of the entire western half of the province. It is to be hoped that the results of this work will be sufficiently encouraging to expedite the scheme for building the railway from Lashio to Yunchow, and eventually to Hsiakwan. This section will form one of the most important links in a through railway to connect Burma with the Yangtze and Eastern China.

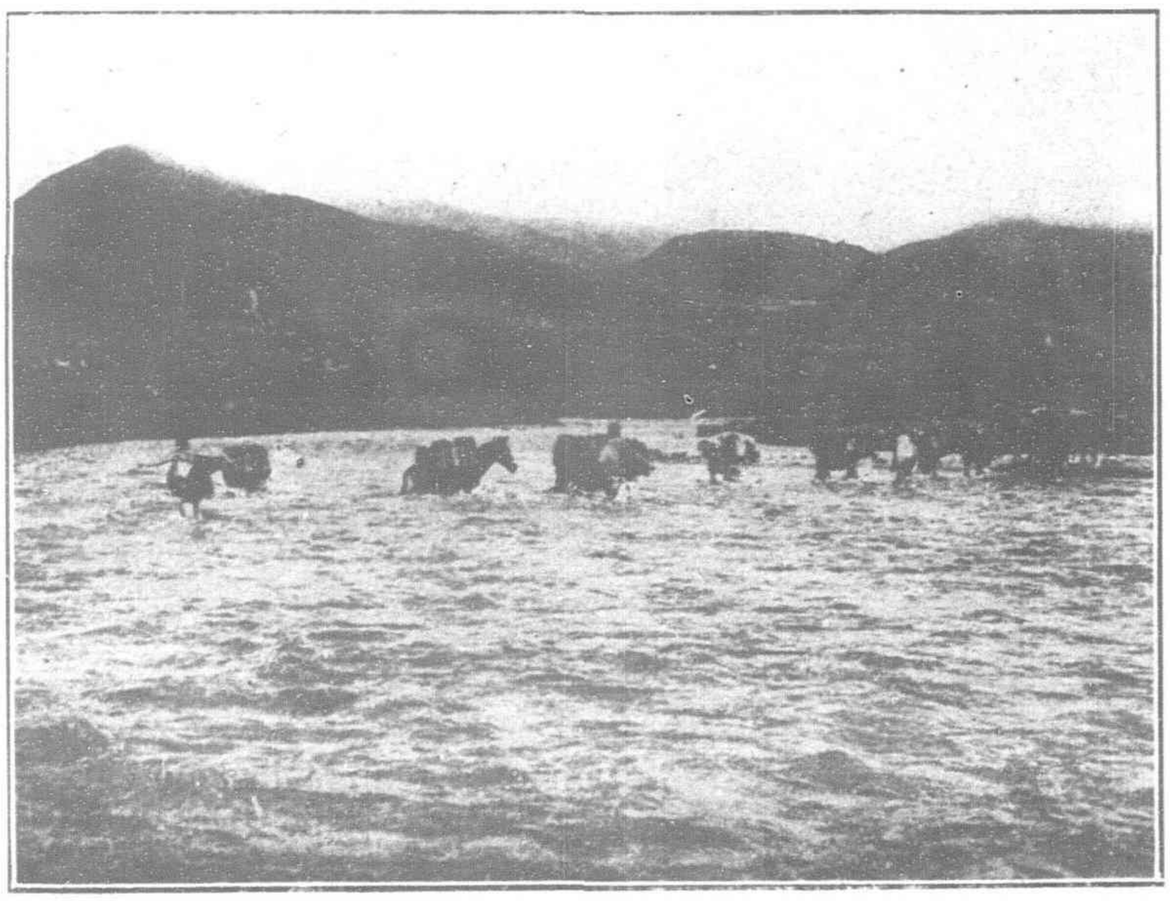
It is worthy of notice to record that during my entire journey across Yunnan not a single opium poppy was seen.



A LANDSLIDE NEAR LAHATI, ON THE TONKIN-YUNNAN RAILWAY, JUNE, 1918

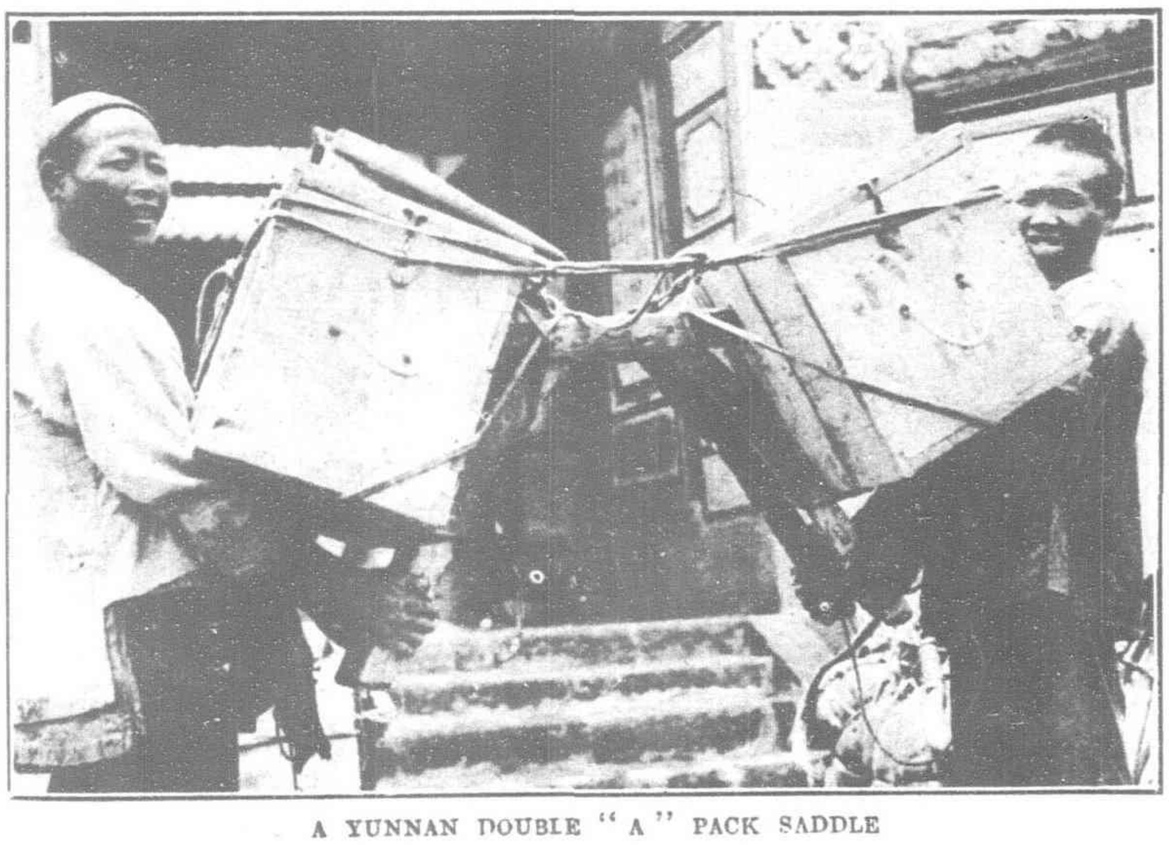


A VILLAGE BRIDGE NEAR YUNNANFU

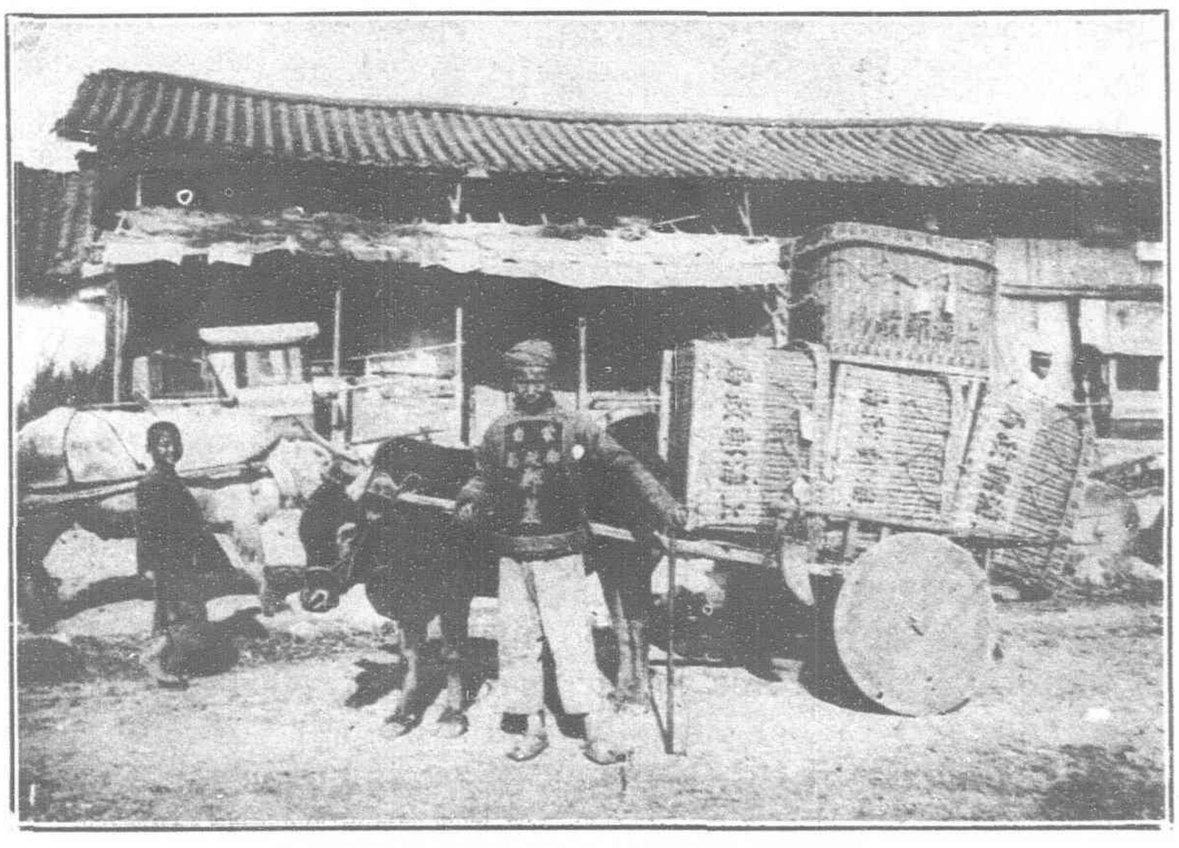


CARAVAN FORDING THE YUNGPING HO

LOADING A MULE PACK EN ROUTE TO TALIFU



A YUNNAN DOUBLE "A" PACK SADDLE



A YUNNAN CART WITH WOODEN WHEELS

nor were there any signs of its cultivation. It was a different story, however, when the Burma frontier was crossed, for there the cultivation of the opium poppy was seen on all sides. As there are no guards on the frontier the Chinese have no difficulty in carrying opium back into Yunnan.

With the advent of better means of transportation the province of Yunnan should make tremendous strides in its economic, industrial and commercial development.

The writer's journey really began at Haiphong, the coast terminus of the Tonkin-Yunnan Railway, which was built and is controlled by the French. The distance of 535 miles between Haiphong and Yunnanfu is usually made in three days with stop-overs for the night at Laokay and Amichow en route. The trains are not run at night on account of the danger from land slides which occur frequently during the summer months. A photograph in this issue shows the effects of a land slide which occurred in June, 1918, between Laokay and Amichow, and made the journey extend to four days. All of the baggage and personal effects had to be transferred by pack coolies around this break in the line to a train sent out from Amichow. The French engineers deserve great praise, however, for having successfully completed a most difficult feat of railway engineering. It is safe to say it is one of the most wonderful scenic railways in the world, and the journey from Haiphong to Yunnanfu, viâ Hanoi, is well worth making.

Yunnanfu is a walled city 6,400 feet in altitude, and has an estimated population of 100,000, including the inhabitants outside the city walls. This city is cleaner looking and more advanced than the other prefectural cities with the possible exception of Yungchangfu. There are two small hotels under French management where one may live very comfortably. The French community predominates, and is further augmented in numbers during the beginning of the summer months when French residents from Tonkin and as far south as Saigon come to this healthy town to recuperate from the effects of the trying climate of Indo-China.

PORTION OF THE PAVED TRAIL BETWEEN YUNNANFU AND TALIFU

Next in numbers are the Japanese, then come the British, American, and a smattering of other nationalities. The French, Japanese and British have consular officials representing their interests, but the Americans have none, and have apparently not realized the rapidly growing commercial and political importance of Yunnanfu. The French have established a bank (Banque Industrielle de Chine), and have also a number of important commercial houses. There are also a well equipped French Hospital and a French Post Office.

The Standard Oil Company interests are in the hands of a very competent American, while the interests of the British-American Tobacco Co., Ltd., are in the hands of an equally competent Britisher. The other nationalities are employed in the Chinese Customs and Postal services.

The climate of Yunnanfu is excellent, the summer temperature seldom rising above 85° F. During the hottest months the evenings are delightfully cool, and a light blanket, at least, is necessary for bed covering.

From Yunnanfu the writer's journey was over the regular caravan route to Talifu, a distance of 220 miles, which was made in 13 days. As this was made during the rainy season the so-called road in many places was simply a mire. Wherever portions of the paved road were missing one's pony would slide from the paving blocks of sandstone or limestone into mud holes. Travelling under these conditions was both slow and difficult. The first night out from Yunnanfu was spent in the "Ritz-Carlton" of Anningchow. In all my years of travelling through the Far East I had never seen before such attacks in force by vermin whose sole aim was to enter our cots and crawl all over us. Thereafter, with one exception, we either slept in a temple or pitched our tents. The temples were usually comparatively clean, and, strange as it may seem, quite free from vermin.

The filth, dirt, and vermin that were seen in some of the villages en route to the Chinese Shan States simply cannot be described in polite language. How the inhabitants exist in the midst of all this is beyond my conception.

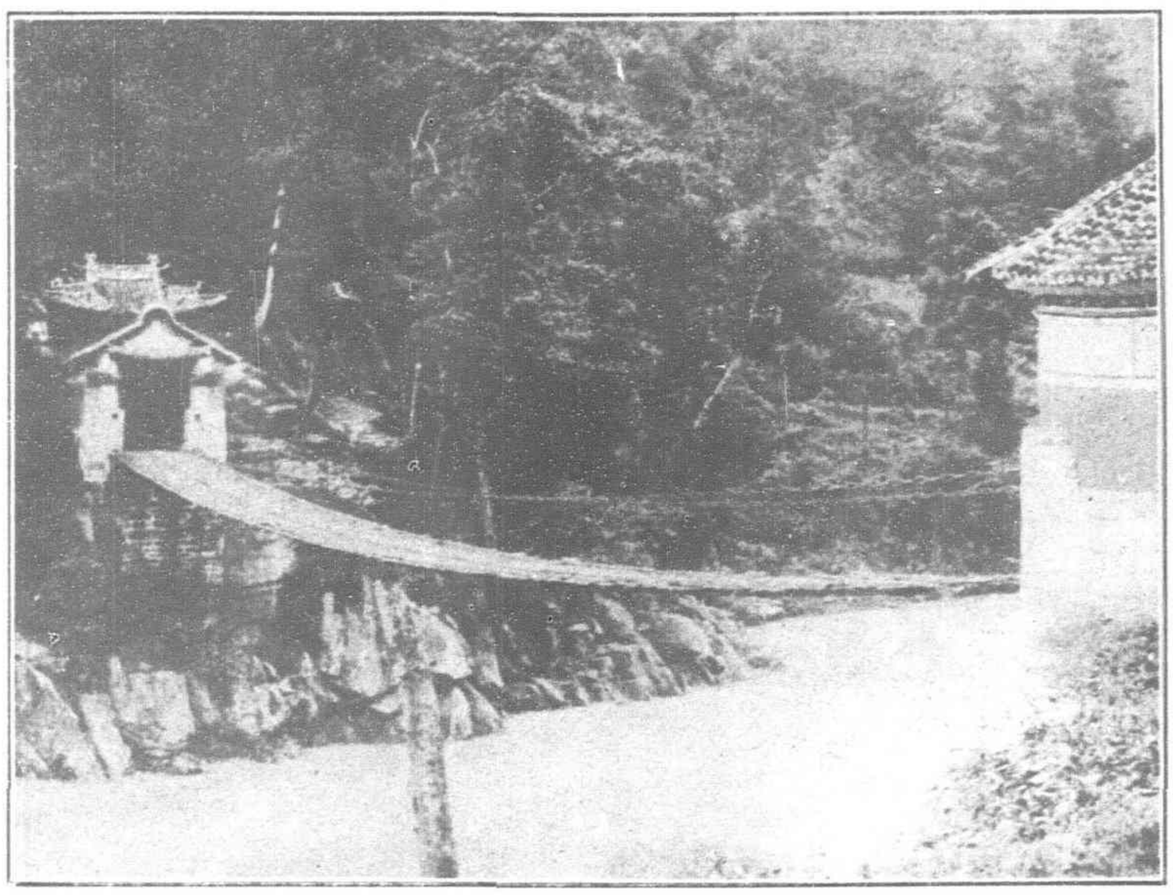
The average Chinese inn is a bedlam of noise at night; on the other hand the temples where we stopped were quiet and enabled us to enjoy restful sleep.

On our arrival at Talifu we were installed in a very clean portion of a temple just outside the city walls. Seldom has it been my good fortune to see a city with a more picturesque setting. As one approaches the city one can see a number of very fine pagodas that are visible long before the city is reached. These pagodas are said to have a history of 1,500 years, and were erected to the spirits of the "earth, wind, and water."

Directly back of the city is the Tsangshan range, which rises to a height of 14,000 feet. About 1½ miles to the east is a beautiful body of water known as the Erh Hai, about 24 miles long and from three to six miles in width. Fishing and sailing boats were much in evidence, the latter for carrying passengers and freight to various points on the lake. Talifu is 6,700 feet above sea-level and also enjoys a delightful climate. Some day when the railway is extended from Burma to Hsiakwan this city will become popular as a summer resort for the residents of Burma.

The next journey was from Talifu to Yungchangfu, another prefectural city situated in a large fertile and well populated plain. The city is well laid out with broad paved

MULE AND PONY CARAVAN STOPPING FOR TIFFIN EN ROUTE TO TALIFU

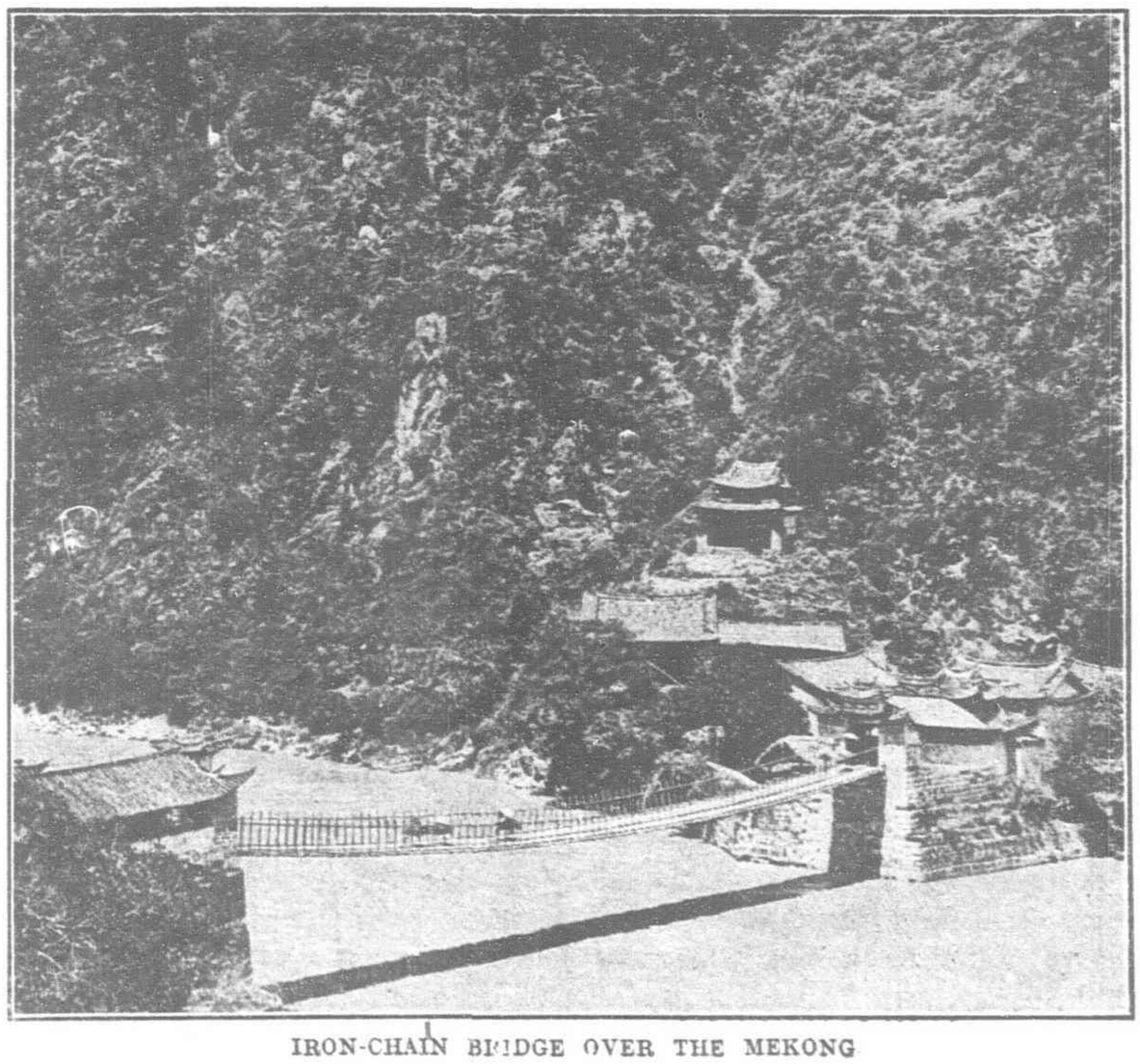


IRON-CHAIN BRIDGE OVER THE MEKONG, MILES DOWNSTREAM FROM THE OTHER BRIDGES. BUILT IN 1915

MARKET DAY AT YUNGCHANGFU

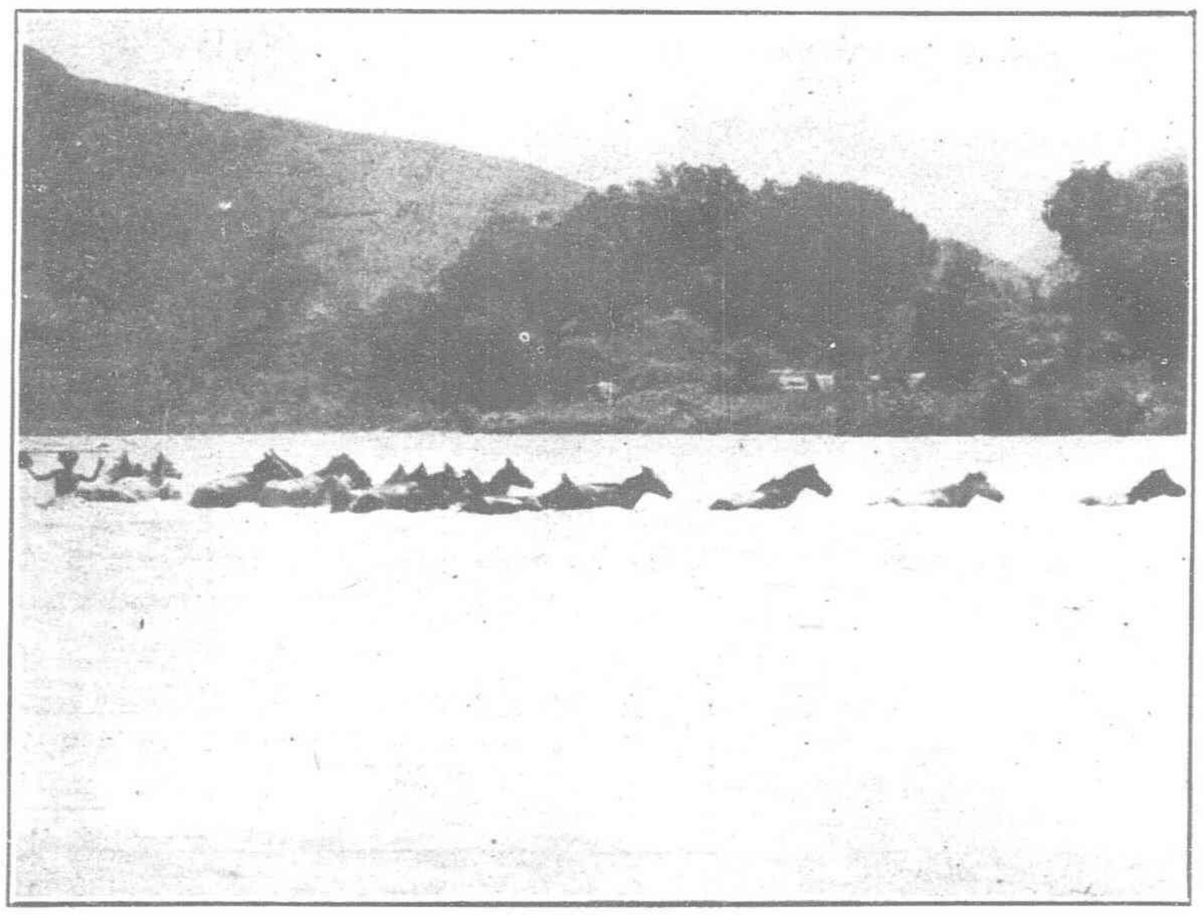
MAIN STREET AT YUNGCHANGFU

CARAVAN ON THE MARCH EN ROUTE TO TALIFU



IRON-CHAIN BRIDGE OVER THE MEKONG

streets at right angles to one another. On market day the main street (Bazaar Street) is one seething mass of humanity. From this city a trip off the beaten path was made northwards



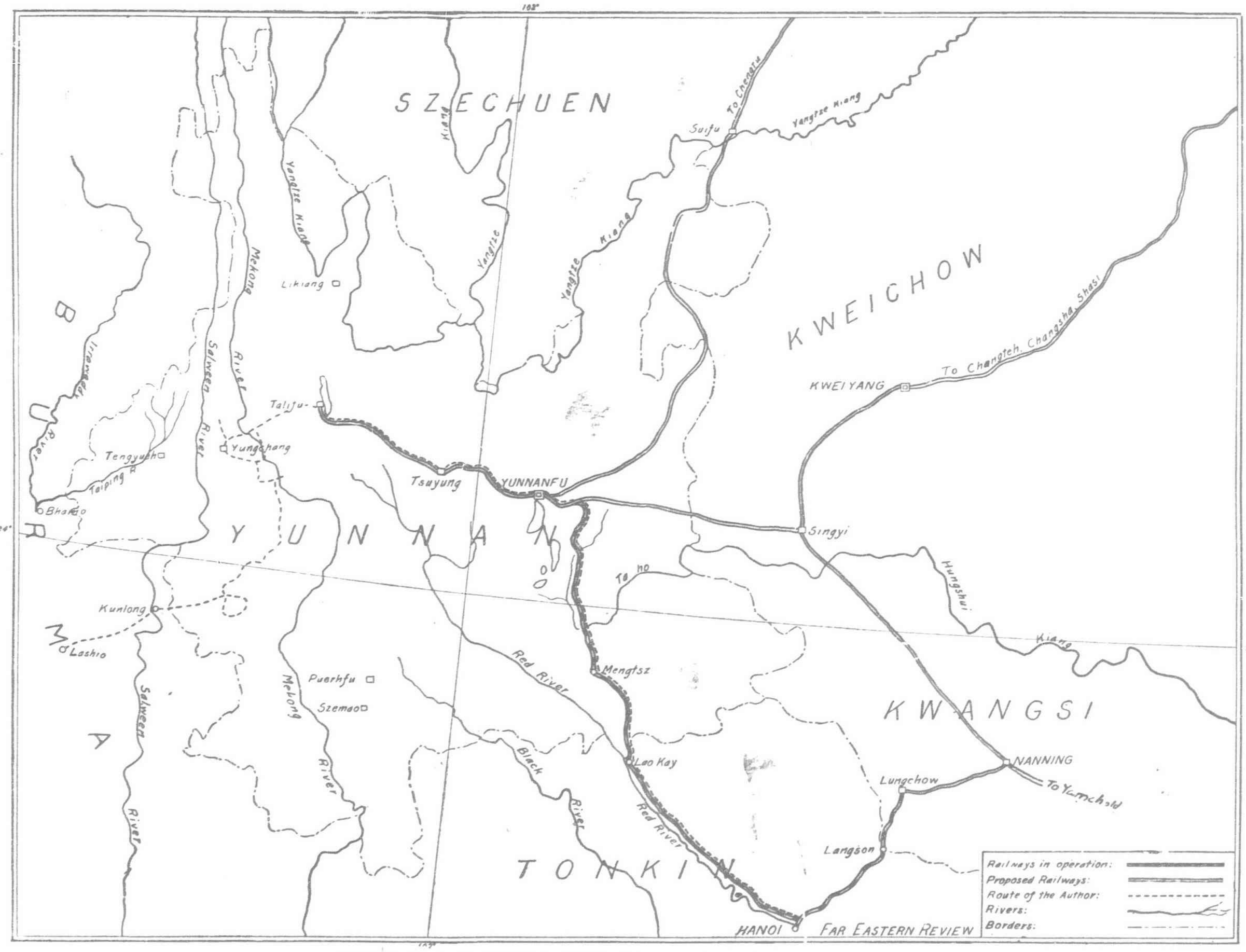
CARAVAN PACK ANIMALS SWIMMING ACROSS THE NAMTING HO AT MENGCHIEN

for a distance of 100 *li* to the Lolo village of Chuchai. Then the party returned over the same route to Yungchangfu en route eastward to the Mekong; from there a *dètour* was made to Yutien, a prosperous looking town on the edge of a small but well cultivated plain. From this place it was decided to cross the Mekong over a new iron-chain bridge built in 1915; this bridge is similar to the one 40 miles further up stream. On the way back from the river we encountered some Chinese with cross bows and arrows who permitted me to take their photograph. From this point an interesting journey was made to Shunningfu. This city is 5,800 feet in altitude and is much smaller than Yungchangfu. It is situated on the west side of a very narrow but fertile valley; in the vicinity the hills have been terraced to unusual heights for the cultivation of rice.

The country to the southward of Shunningfu was explored and the caravan continued on down the right bank of the Namtingho to Mengchien viâ Hsiahkau. The Namtingho was running almost at high water when we crossed to Mengchien, and it took nearly half a day to swim the pack animals across; some of them would strike the current in midstream and drift down stream to a sandbar on the same side they had started from, and then the same act was repeated until they were all finally across.

Shunningfu was originally a Shan State, and a number of Shans were seen there, but they became more numerous as we went down into the valley of the Namtingho.

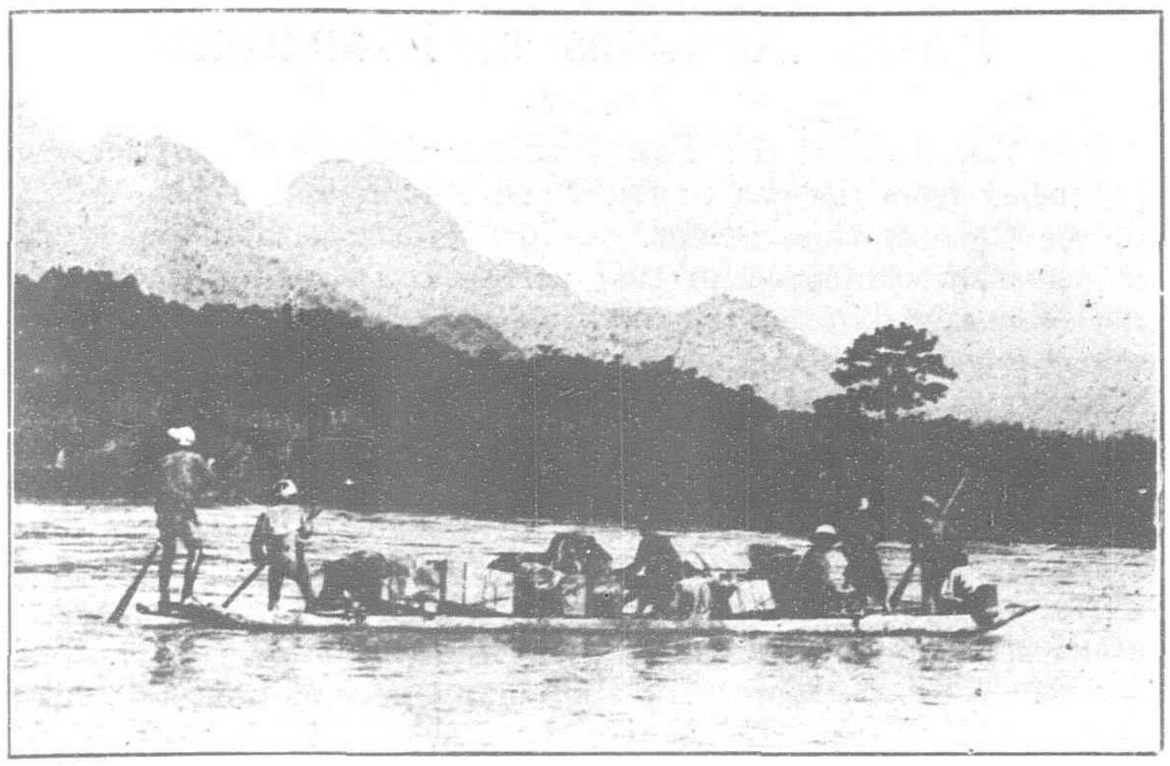
An interesting trip was made through the comparatively unknown Chinese States of Mengsa Kengma, and Menting. In many ways these States proved to be of more interest than any of the other portions of Yunnan. It is necessary, how-



SKETCH MAP OF YUNNAN WITH THE ROUTE TAKEN BY THE AUTHOR.

ever, to reserve a detailed account of the journey through these States for publication later on.

From Mengting the caravan travelled to Kunlong Ferry on the Salween and thence through a portion of the Northern Shan States of Burma to Lashio, a railway terminus.



AUTHOR CROSSING THE NAMTING HO AT MENGCHIEN IN TWO DUG-OUTS LASHED TOGETHER

It felt good again to be seated in a train after four months of riding and hiking across Yunnan in the rainy season.

From Lashio the party proceeded to Rangoon, viâ Mandalay, where we embarked on a mail steamer for Shanghai.

Present Day Yunnanfu

Further information concerning Yunnanfu is given by Mrs. Mary Ninde Gamewell in the November issue of "The Chinese Recorder," in the course of an article on "A Glimpse at Yunnan and the work of the Yunnan Mission Party." Mrs. Gamewell has been ten years in China engaged in travelling and evangelistic work. In giving her impressions of Yunnan she writes:

In spite of the fact that Yunnanfu is still decidedly provincial, it has much to commend it. Those who have travelled widely over China declare it to be one of the cleanest cities in the whole country. The streets are swept daily and garbage is carried away in wheelbarrows or in covered horse carts, the latter recently introduced. Sanitary receptacles built of cement, for receiving the garbage, are scattered about the city. The city drains are opened every spring and washed out. During the wet season the rains keep them clean.

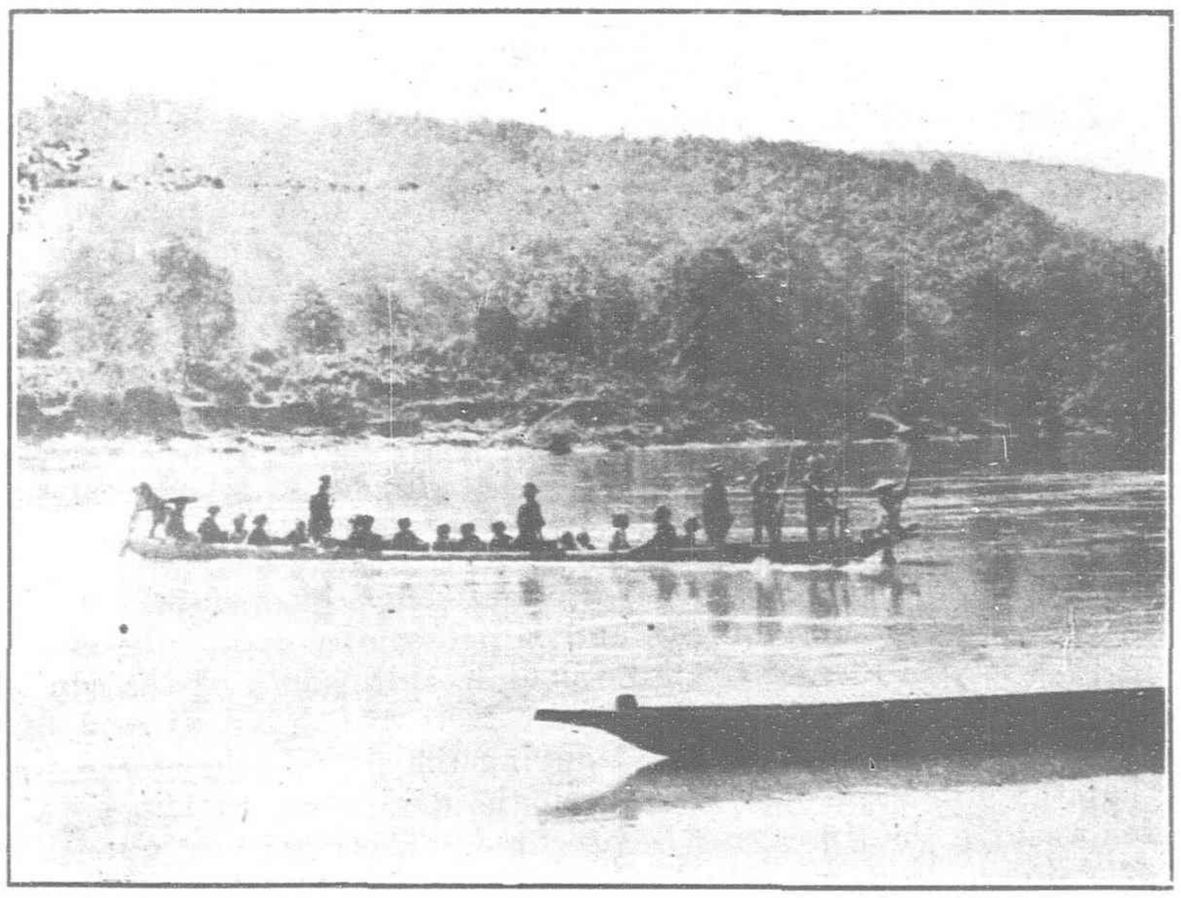
Yunnanfu has had electric light for seven or eight years, and last year waterworks were installed, the Chinese generally carrying the water in buckets to their homes from the street pumps. There is a fire department with steam engines and an efficient force. The streets, which are of good width for a southern Chinese city, are being made still wider from time to time as old buildings are torn down. They are paved with granite boulders from neighboring quarries, and are uneven and hard to walk over except for the smooth path in the centre. Repairs are made constantly necessary on account of the wear caused by processions of mules, donkeys, and ponies, laden with salt, rice, charcoal and other merchandise, which are continually filing into the city from the surrounding country,—but especially because of the heavy, lumbering ox-carts carrying blocks of granite, and that are a distinguishing feature of Yunnanfu.

Yunnanfu boasts of a mint founded thirty-two years ago which turns out from twenty to twenty-five thousand silver half dollars daily. Ten cent pieces are also minted but no dollars. The money is all circulated within the province except what is sent to Kweichow. Wood and not coal is chiefly burned in the furnaces, a strange circumstance in forest-denuded China. Adjoining the mint is the arsenal. I did not get permission to visit this place, but was told that at least five thousand bullets is the daily output. No cannon or guns are made though they are repaired. Some distance outside the south gate of the city is a government foundry. The building was formerly the East Temple, or, in other words, the temple where the various punishments of hell were pictorially represented, and it is popularly called by that name still. Eight years ago, at the time of the revolution, when the temple became a foundry, its idols were made into building bricks. The most interesting work being done at the foundry at present is the casting of the new south gate, now nearing completion, to be known as the "Protection of the Country Gate." It is to commemorate the effort made by the South, and particularly by Yunnan, during the past few years, to preserve the integrity of the Republic. The gate is of cast iron and very handsome. It was designed by a Hupeh man educated in Japan.

At the time of the student strike, the students of Yunnanfu turned out for a demonstration and paraded the streets five thousand strong with music and banners. The people, usually so peaceful, were roused to a high pitch of excitement. Shopkeepers selling Japanese goods received rough handling, and a few pedestrians wearing Japanese straw hats, among them a military official, were thrown down and severely beaten.

Yunnanfu has a few small factories. In connection with the Model Factory, where a little silk and cotton weaving is done, there is a simple, but remarkably well conducted industrial boarding school for young orphan boys. It is interesting to note that, with scarcely an exception, the schools and factories in Yunnanfu are housed in old-time temples and yamêns. The home of the Technical School is a temple dating back two hundred and fifty years. At a charity industrial school the four hundred boys eat their daily rice under the shadow of gilded idols and sporting demons holding revel in high relief on the side walls. One of the city dailies—there are seven in all, each with a circulation of several hundred—owns six large, handworked printing-presses which stand in a row directly under as many dust-covered, rotting buddhas of heroic size. The printing-presses, turning out sheets of printed matter, seem as much out of place in their environment as the electric bulbs fastened to the arched gateways of the old city wall!

The population of Yunnanfu is roughly estimated at a hundred thousand. The people are kindly and simple-hearted, but their mentality is said to be below that of the Szechuanese. It is a common saying that the "smart shopkeepers" are generally men from other provinces, chiefly Szechuan.



KA-CHINS CROSSING THE SALWEEN TO THE MARKET AT KUNLONG FERRY

In Yunnan mountains are everywhere, and the sparse population is scattered quite evenly over the entire province. There are plains, it is true, patches of vivid green shut in by the mountains and watered by mountain streams. As a rule the Chinese live on the rich, fertile plains, and the tribes people high

up on the mountains, except in the Southern part of the province where the Chinese have chosen the high places, leaving the hot, malarial plains to the aborigines. The Chinese, for health reasons, do not like to live below four thousand feet above sea level.

MAIN STREET OF KENGMA, CHINESE SHAN STATES

Occasionally the mountains were bare, except for a growth of grass and underbrush, but more often they were wooded as I never expected to see mountains wooded in China. Birch, beech, balsam, maple, oak, pine, camphor, and hundreds of other trees grew in abundance. Indeed, scientists tell us that in Yunnan, from the cold north to the tropical south, every known variety of flora and fauna is to be found. Many of the trees are forest giants and very old. I saw pine trees in temple precincts which missionaries assured me were probably coeval with the Tang and Sung dynasties. Yunnan would delight a geologist. Mountain sides studded with gigantic masses of rock hurled from the bowels of the earth, and the beds of glaciers, are frequently seen. There are enchanting ravines, whose riotous growth of tropical vegetation is kept perennially green by the spray from noisy waterfalls and rushing torrents.

Quantities of beautiful wild flowers bloom along the roadways, among them red and white roses, azalea, and hawthorn. Whole mountain sides are bright with a purple blossom whose name I did not learn. Rice, wheat, barley and beans grow in the valleys and maize and buckwheat on the hillsides, the latter being the staple food of the tribespeople. An English scientist who travelled widely in the province gave it as his opinion that half the world's supply of arsenic comes from Yunnan. The poppy is being increasingly cultivated, and thousands of pack animals are bringing opium across to Yunnanfu from Burma. Printed edicts prohibiting its growth and use are pasted on the walls of almost every town and village, but it is a well-known fact that the governor secretly encourages it. Our chair coolies were clamorous for it, and in one small city where we spent a Sunday I learned there were more than a hundred opium dens.

Yunnan is called a poor province, but it has untold wealth in its undeveloped resources, and is potentially one of the richest in China. Its largest tin mine is at Kochiu, south of the capital and a little west of the railroad. Here two hundred and fifty thousand coolies are employed during the six months of the year that the mines can be worked. In the dry season sufficient water for washing the tin cannot be procured. There are vast quantities of copper, iron, and coal. In the northeastern corner of the province, bordering on Kweichow, is a rich vein of anthracite coal which crops out of the ground, so that all the people living there have to do is to pick it up and burn it. But so difficult and costly is transportation that wood and charcoal are used almost altogether in Yunnanfu. Salt wells are found in various places, though perhaps the largest and most remunerative are in the south-central part. The famous Puerh tea from this same district, very popular with the Chinese though not a favorite tea with foreigners, is shipped in large quantities to Yunnanfu and Talifu and thence to other provinces.

Fossil Remains in Manchuria

In last issue of the FAR EASTERN REVIEW an article was published from the pen of Dr. J. G. Andersson, Mining Adviser to the Chinese Government, on fossil remains in China. The information contained in that article can be supplemented by the following data on the fossil animals of Northern Manchuria taken from a valuable paper by Mr. E. W. Skvortzow entitled "Notes on the Agriculture, Botany and the Zoology of China" in the "Journal of the North-China Branch of the Royal Asiatic Society, Volume L—1919": The geological investigations made by E. Anert ("The Travels in Manchuria." S. Petersburg, 1907) in Manchuria are the most serious and scientific of all the works on this question. In Anert's book and other geological articles nothing is indicated about the paleontological findings.

Generally at the present time many persons have an impression, that in North Manchuria there are no fossils. True, they are very rare, but they exist. Here mostly are met the ammonites of the Jurassic period in the dolomitic aggregates. The North Manchuria ammonites are small and have been seen in a stone-pit near the railway station Inmienpo and on mountain-rocks round the Maoershan station. Here the Jurassical fossils are not so richly represented as in the case of extremely crystallized limestone. Not far from Harbin at the beginning of the Ch'eng-kuan-ts'ai-ling mountains, at the railway station, Erh-cheng-chiang-tze, there is a hill composed of devonian limestone, which is extremely rich in fossil shells (*Spirifer moskowensis*).

The paleontological findings of the tertiary time in Manchuria are little known. So, the unique vertebra of mammoth (*Elephas primigenius*) was found at Harbin in the sand of the Sungari valley, but it is probable, that the bone was brought to this place by the river from the North, the Nonni river and Hingan mountains. At the present time on the West of North Manchuria there are discovered some tertiary and post-tertiary remains. In the Chalanor coal-mines, which are of the post-tertiary period the horns and bones of the primitive oxen (*Bos primigenius*) and jaw-bone teeth and skulls of rhinoceros (*Rhinoceros tichorhinus*) are often found. It is very remarkable also to find at the source of the Nonni river a whole cemetery of rhinoceros, which calls for attention and careful study.

Some fossils collected in North Manchuria are now at Harbin in the "Mountain" department of the Chinese Eastern Railway Administration, in the museum of the Commercial School, in the museum of the Petrograd Mountain Institute, and also in private hands.

It is probable that in the future the remains of rhinoceros and mammoth will also be found in other parts of the Manchuria districts, seeing that already there have been similar discoveries in Japan and in North China.

It is very difficult to get the fossil bones here and to register the findings is almost impossible, since the local Chinese grind the bones of primitive animals to a powder, which is used in native medicine. For this reason we can often see in some Chinese medicine shops in Manchuria the horns of the primitive oxen and these curious goods indicate that here they are not a great rarity.

The methods employed by the people of Kwangtung Province, China, for making soap are very crude. The art of soap making is very old; only Chinese soap was used before foreign soaps were introduced into Kwangtung. Instead of treating lard or fatty material with a solution of sodium hydroxide or potassium hydroxide, lime is used to react with the oil. So instead of soda soap and potash soap, we have lime soap which is made in the shape of a bowl and is termed "bowl soap." It is hardly soluble in water, and is used only for washing purposes.

Hydro-Electric Enterprise in Japan

The war brought into existence a number of industries in Japan which had not existed before simply because they could not compete with foreign goods. There was, for instance, quite an extensive working of ferruginous earth, such as paid very well when iron reached the pre-war price of copper, but which was out of the question after the return of peace. Quite a catalogue could be compiled of similar ventures. But though the restoration of foreign competition has been fatal to some industries, the certain continuance of high prices is opening the way for others. This is particularly the case with the production of electricity by water-power. Coal (for domestic consumption at least) costs six times its pre-war price, and further advances are promised. New mines are being opened, but the possibilities of increasing the production fall short of the certain growth in the demand, so there is no relief to be looked for in this direction. It follows that the number of feasible hydro-electric schemes is enormously multiplied, and both the central and provincial governments, besides private investors, are surveying all likely sites for new works. The Osaka Chamber of Commerce, a very vigorous body with catholic interests, probably takes the lead among private bodies in its encouragement of the idea.

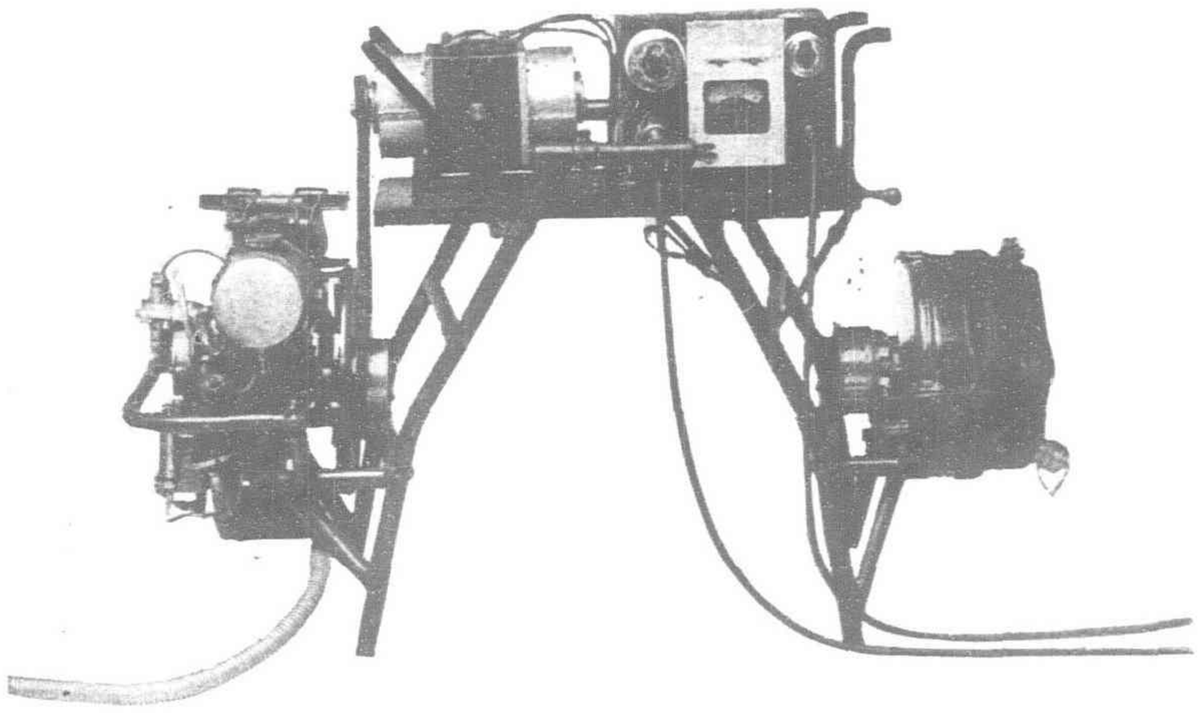
In all countries, and especially in Japan, hydro-electric schemes affect so many interests that there is a very strong argument for their being undertaken as public ventures rather than private. Governor Ariyoshi, at an extraordinary meeting of the Hyogo Prefectural Assembly at the end of October, dwelt upon this aspect of the work, when recommending to the Assembly two schemes for official prosecution. There is a great lack of large rivers in Japan, but a multitude of small ones which are a continual problem. Most of them run on high beds hemmed between higher banks, and most of the short road and railway tunnels run beneath such streams. This kind of stream is of little use for irrigation, being usually dry when water is wanted, but it is a constant danger to the country, and the flood damage every year runs into a very large sum. River-training is a regular part of the Budget, but the allotments for it are very often diverted to other uses. The fact that the damming and storing involved in most hydro-electric schemes contributes largely to the prevention of floods is a strong recommendation, and may frequently make a scheme worth while to the public which is barely feasible as a private venture. Forestry, irrigation, and canalization all benefit, and it may easily be conceived how, if all possibilities were realized, every drop of rain could be turned to the enrichment of the country instead of three-quarters of it being an embarrassment and sometimes a danger. On the other hand, there are many cases where private enterprises can only be carried out to the detriment of other people and the prevention of other schemes which, while possibly less remunerative as hydro-electric investments, are of more public value on account of their effects on the surrounding country. This, said Governor Ariyoshi, was the case with some of the schemes for which application had been received, and for which it was not intended to grant sanction.

The schemes at present contemplated by the prefectural government are not very large ones, but are typical of the problem generally, which needs to be met in a large manner. The rivers to be taken in hand are the Ibogawa and Chikusagawa, the westernmost streams in the prefecture. Along the courses of these it is intended to construct altogether eighteen power-houses. The cost of all these is to aggregate Y.7,000,000, the current developed is to total 7,000 kilowatts, on a conservative estimate, some of the experts hoping for as much as 8,700. Income at 3 sen per unit will come to Y.1,200,000, and with Y.226,000 set aside as running expenses and maintenance charges, a net income of Y.980,000 is looked for. If the money be raised in the form of a $7\frac{1}{2}$ per cent. loan and paid off year by year, the prefecture would find itself at the end of twelve years in receipt of a handsome income with no capital charges on it. Kamigori and Yamasaki would probably be the chief distributing centres for the current, and it might be replied to the objectors to the scheme who complain that the Government talks as though there were no loss of current in long-distance transmission that it is highly probable that there would be no current left for long-distance transmission after local demands were satisfied. There is an almost unlimited demand notwithstanding the very unsatisfactory nature of the current in most places. The private interests also declare that the capital outlay is underestimated and that 3 sen per unit is too high a charge—though there are plenty of private concerns charging 4 sen. It is highly probable that the capital estimates are too low, since one can only estimate according to current prices, and they are rising every day, but if they rise very much more there will be nothing for it but to raise the costs for current. For all ordinary fluctuation there appears to be sufficient margin allowed.

In the course of his speech recommending the prefectural scheme Governor Ariyoshi referred to the uneconomical use of current in industries in the prefecture. A good deal might be written on this subject. The users of current have very vague ideas on the subject of separate motors and their advantages, on the care of belting, the straightness of shafts and other elementary matters. There is plenty of excuse for them, and it is their own money that they are wasting, but there is less to be said for the suppliers. Osaka, for instance, is supplied principally by private companies, but the public does not seem to benefit by their competition. Complaints of the lack of current are constant and at the present moment many factories are working short time at the dictation of the companies, which are always quarrelling among themselves instead of making current. In Kobe, which has a municipal current, the lights continually try to mimic the firefly, and as for the power, it is sufficient to say that there was lately a strike at the match factories in Kobe, not for higher wages, but for the compensation of piece workers during the daily and hourly interruptions to the supply of current. Current is nowhere very cheap in Japan, and it may be said, speaking generally, that when the actual candle-power obtained is reckoned instead of the nominal, it is very dear indeed. Circumstances make the people glad to get electric lighting at any price, but the supplies, though found in the remotest villages, are inefficient even in the largest towns. This will have to be changed if Japan is to use electricity on a large scale industrially, where inefficiency will injure trade. As for the machinery for the development of the water-power resources, the greater part of it will naturally have to be imported, since the smaller appurtenances will keep Japan's electrical industry going for a long time, however fast it may expand. The Japanese seem to be quite in earnest about this electrical development, as they are hopeless regarding a sufficiency of coal, the transportation charges on which, owing to overmuch handling by men who are no longer satisfied with a subsistence wage, sometimes doubles or trebles the cost on the last few miles. The prefectural government is the most convenient unit for the handling of the problem, and these plans for the Hyogo prefecture are typical of what is going on in a great many places.

China's New Wireless Telegraph and Telephone Installations

As already announced several important contracts have recently been concluded between the Chinese Government and the Marconi Wireless Telegraph Co. The first of these contracts calls for three semi-high power stations to be erected at the following places: Urga, Urumchi and Kashgar. These



GENERATING PLANT, CHINESE WIRELESS TELEPHONE SET, ARRANGED FOR CARRIAGE BY PACK HORSE. THE GASOLINE ENGINE ON THE LEFT DRIVES THE ALTERNATOR WHICH SUPPLIES THE NECESSARY CURRENT

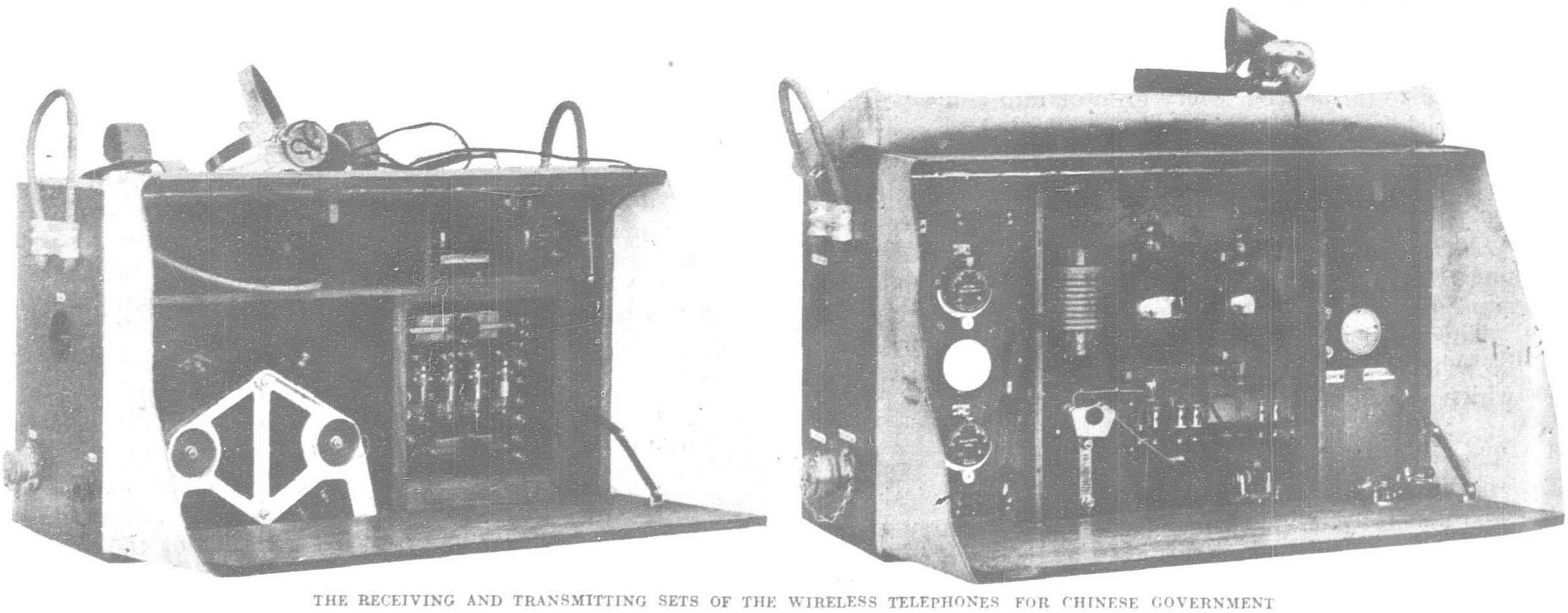
stations consist of the arc principle and have been specially designed for the Chinese Government. Owing to the inaccessibility of these sites and the lack of transportation facilities in China, the proposition of utilizing aerial transportation was seriously considered and in fact the apparatus was specially designed so that there would be no heavy packages, with the idea of using aeroplanes for this transportation. No particular package or piece of material weighs more than 450 pounds. However, aerial transportation will have to be abandoned, and arrangements have been made to transfer all this machinery by camel transport. This will mean practically the largest camel transportation that has been carried out in China as many hundreds of tons of machinery, cement and materials have got to be taken several thousand miles.

Each station consists of a 25 kilowatt arc transmitter of the latest construction in Marconi practice. These stations have a guaranteed range for day and night communication of one thousand miles, but, of course, at night this distance will be greatly exceeded.

The arc transmitter is a development of the circuit used by Mr. Duddell who, in 1900, discovered the phenomenon known generally as the "singing arc." In the course of investigation he found that if a direct current arc be shunted by capacity and inductance the arc will commence to emit a musical note approximately equal in frequency to that of the circuit formed by the arc capacity and inductance. The theory of the action of the "singing arc" is as follows: When the condenser and the inductance in the shunted circuit are connected across the arc the condenser begins to accumulate a charge and therefore robs the arc of a part of its current. If the current through the arc decreases, it is clear from the foregoing considerations that the voltage at its terminals must increase, consequently as long as the charging of the condenser continues, the arc voltage will rise. This continual fluctuation of current through the arc causes it to give out a sound if the frequency of the oscillation falls within the limits of audibility, that is if the frequency does not exceed about 30,000 per second. Dr. Poulsen, the well-known Danish scientist, made the discovery that by forming the arc in a closed chamber filled with hydrogen or alcohol vapor and also by placing the arc transversely between the poles of a very powerful magnet, it was possible then to obtain in an oscillating circuit shunted across the arc very powerful oscillations and of such a frequency to be suitable for wireless telegraphy.

The reception apparatus to be installed at each of these stations is the latest form of Marconi receiver consisting of the improved valve type and amplifier. The discovery and development of the thermonic valve has in recent years revolutionized wireless telegraphy. These receivers step up to audibility signals that could not be previously detected on any other form of receiver.

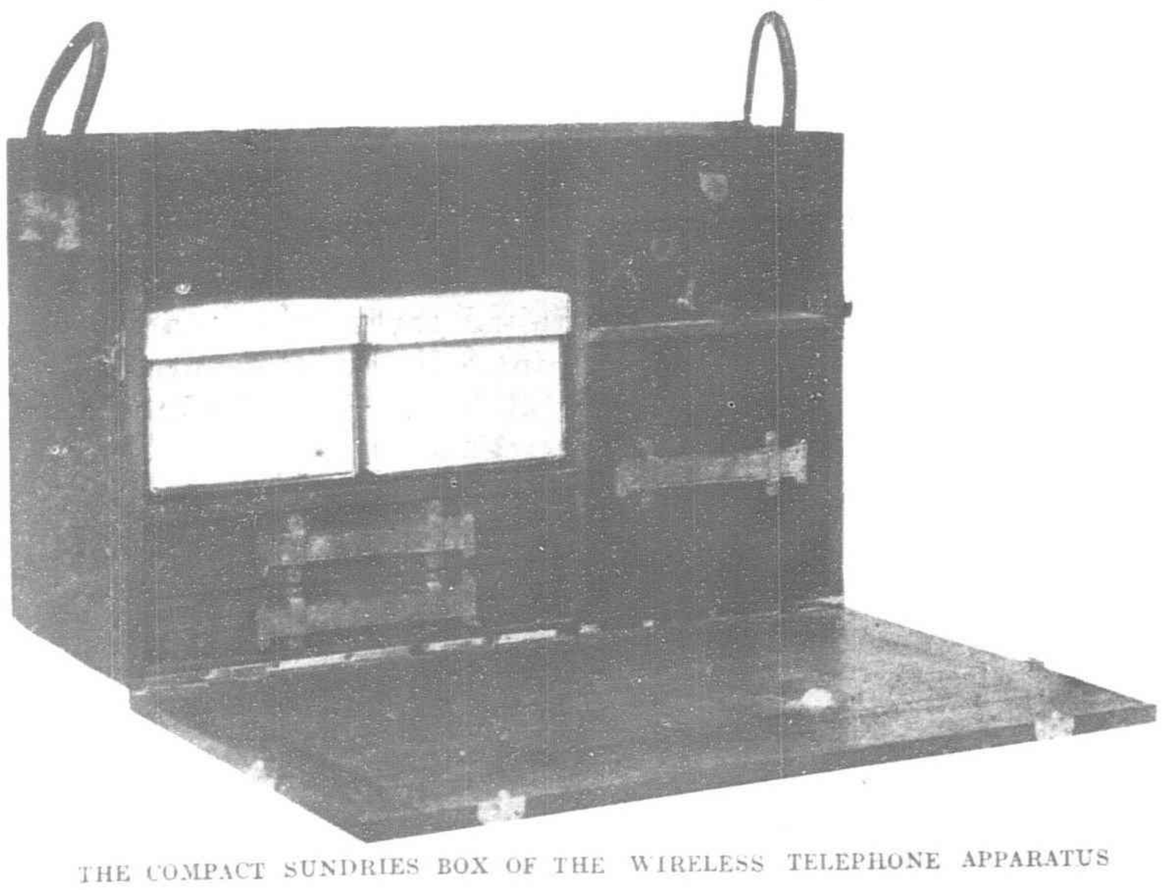
When these stations are completed, wireless communication will be established across China, opening up areas where



THE RECEIVING AND TRANSMITTING SETS OF THE WIRELESS TELEPHONES FOR CHINESE GOVERNMENT

previously there has been no communication. The benefit to be derived from an accurate and quick communication is perfectly obvious.

These stations are equipped with special directional antennae which are used in conjunction with special apparatus so that communication can be maintained during atmospheric disturbances. It may here be pointed out that one of the



THE COMPACT SUNDRIES BOX OF THE WIRELESS TELEPHONE APPARATUS

greatest difficulties in wireless communication, static discharges which interrupted communication, has now been satisfactorily overcome by the use of special X-stopping apparatus. The construction of these stations will be commenced in the course of the next three months, the transportation of all material being already in hand, and the first consignment having already been satisfactorily delivered in Mongolia.

Wireless Telephones

A further contract has been concluded with the Chinese Government for wireless telephone installations. These installations have arrived in China and instruction to the Chinese personnel is now proceeding. These installations are of a portable nature specially designed for military purposes. The progress of the wireless telephone has been retarded during the war as naturally all research was concentrated in one channel so that the design and manufacture of wireless telephones was somewhat held up. These installations have been supplied to the Chinese Government with a guaranteed range of speech of 60 miles. They are also designed for wireless telegraph working for a range of 100 miles.

The transport of the installation can be arranged either on pack horses, horse-drawn vehicles or motor vehicles. The personnel normally consists of six men who can erect the station and have everything in working order in ten minutes; a minimum of two men, however, can erect and work the set. The station having been dismounted and erected, is connected by a system of armoured connectors fitted with non-interchangeable plugs and the engine started up. This engine is fitted with a governor and automatic lubrication system and requires practically no attention. A direct coupled alternator generates the necessary power which is carried to the transmitting circuits where it is transformed by a series of transformers to the necessary potential. Connection from the lubricator to the various transformers is controlled by the main change-over switch. This switch is the only part of the apparatus which it is necessary to operate during conversation. The receiver itself consists of a simple tuning arrangement which is connected by means of the change-over switch to the aerial. This aerial is supported on two light steel masts thirty feet in height. Once the receiver has been adjusted for the incoming signals, no further adjustment is necessary and conversation can be carried on between two stations in exactly the same way as an ordinary telephone line.

With regard to the progress that is being made in China from a wireless point of view, this opens up a new industry and the Chinese National Wireless Company which has been formed, has the exclusive right to use all the Marconi Company's patents, rights, designs, drawings and secret processes. This company being half British and half Chinese, being controlled by the Chinese Government and the Marconi Company, will utilize material produced in China and Chinese will be employed in the personnel as far as possible. Owing to the tremendous distances and limited land lines, there is undoubtedly a great need for satisfactory wireless service to bring the outer parts of China in touch with large industrial centres.

With the advance of aviation in China, wireless telegraphy and telephony will naturally play a very important part. With a chain of wireless stations aerial navigation becomes quite an easy matter.

The Marconi direction finding apparatus is now fitted to all large aircraft and enables the pilot to obtain his position at any time during fog or bad weather from the wireless transmitting station. Direction transmission is due to the inception of an efficient receiving device that analyses the direction of the normal to the on-coming ether wave and therefore indicates its actual centre or point of origin. At present the results are wonderfully accurate far beyond any alternative method, particularly for night flying. In its simplest application it might be considered as a form of "homing," that is flying directly towards a given transmitting station. Of course the same idea prevails in flying directly away from a given transmitting station. In finding one's bearings in an unknown position the process is slightly more involved but it is by no means intricate. In such cases, however, the presence of a navigating officer or operator is necessary. Bearings are taken from the plane first on one transmitting station whose location is identified by means of its code call and next on a second known station. As the distance between the two transmitting stations is one of the known factors, or can be calculated on the chart and as the angle subtended by that base line at the point occupied by the plane has now been ascertained by the direction finder, the exact determination of the plane's position is a matter of simple calculation.

In conclusion, the near future will see China possessed of a working chain of wireless stations, which, under organization, should prove a valuable revenue-earning asset to the country.

S. T. D.

Opium growing is proceeding apace in certain parts of Yunnan and other provinces, and smoking is increasing. Some provincial officials, such as Kueichow, endeavor to stop the traffic but still the drug gets through. The devices for smuggling are endless, says a Kueichow correspondent of the "North-China Daily News." Hollowed-out stools, table-legs, table-boards, poles, etc., have been packed with opium. Gowns have been padded with it. One man filled a coffin, and trussed the coffin up in the usual red silk, and actually held expensive funeral rites at one place, to get through. But the fragrance from the coffin was the fragrance of the drug, and he lost his all when the coffin was opened. Preserved eggs have also been stuffed with opium—but discovered. Opium smoking has increased at a very great rate over the province, and the price of the drug in Hingi has fallen 800 per cent. on the last year figures, owing to the amount of opium available.

Metamorphosed Chinese in Java

If the Chinese were inclined to dispute the arguments upon which the exclusive immigration laws of America and Australia are founded, they could do no better than pay the expenses of a few foreign delegations to Java and then complacently sit back and await the publication of reports. There is no part of China, and no Chinese colony in any quarter of the world, which can show such a complete and consistent metamorphosis of the emigrant coolie as Java.

In the old Batavia state house there is an office where every immigrant Chinese pays 25 guilders for the privilege of landing on the island, and where he is subjected to a cross examination and given his papers. There one sees at any hour of the day groups of typical coolies, ragged and dirty, stupid and hungry eyed, from the southern ports of the China Coast, as hopeless a herd of immutable heathen as he could possibly find in the reeking alleys of Foochow or Canton. Somewhere between the state house and the streets of Old Batavia these worms crawl into chrysalis and emerge, after a period of incubation concerning which nothing seems to be known, as the immaculate butterflies of the highway, self-confident, sophisticated, and courteous. There are no coolies in Java outside the state house. Every Chinese on the island is a gentleman, every Chinese jingles Dutch money in his pockets and lords it over the meek Malays with the dignity and restraint of a conscious superior. Chinese clothes go by the board, Chinese filth is non-existent, and the Chinese aversion to cold water, internally or externally applied, gives place to a passion for cold baths and iced drinks. Wherever else the Chinese have gone they have earned the reputation of being an unchanging race. In America and elsewhere they herd together, keep alive to the third and fourth generations their traditions and language, spend nothing, work for wages upon which no competitor can live, and cultivate the national vices in secret and defend their privacy with violence. These are the arguments brought against Chinese immigration in every community where Chinese have settled.

In Java not one of these accusations could be substantiated by fact. The Chinese in Java do not speak Chinese, they speak Malay. No Java-born Chinese will speak his paternal tongue if he can help it, for he finds that Malay is the *lingue franca* of the land and that its use does away with all the difficulties of inter-dialectic conversation. A Cantonese cannot speak to a Fukienese in Chinese and be understood. Men from different cities in the Province of Fukien cannot carry on a Chinese conversation with any satisfaction. If all can speak Malay there are no barriers in the way of speech and no difficulties in the transaction of business, so the Chinese language too has gone by the board. In Java there are at least a dozen Chinese newspapers published, with a total circulation of about 50,000 copies daily, but they are published in the Malay language and are printed in the Roman character. In the whole length and breadth of Java one Chinese publication only in Chinese characters has survived, and that is a weekly leaflet with a claimed circulation of 400 copies.

The standard of living is probably higher than in any Chinese community in the world. In China the average living expense of the people is certainly not more than 15 cents Mex. a day. In Java a Malay can live on ten guilder cents, but the average Chinese probably spends a guilder a day on food and lodging alone. In a Chinese inn a guest pays from 2 to 20 cents a day for lodging, seldom more except in the foreign settlements where more expensive hostelries are patronized by the pretentious. In Java there are no daily rates lower than a guilder a day in any hotel which a self-respecting Chinese would patronize. Houses are clean and well furnished, everyone dresses in clothing of European cut, and everyone has two baths a day and a deal to say about dirt and poor sanitation.

There has been a minimum of missionary work in Java, and the Dutch government has done little or nothing, until very recently, to educate the Chinese or to instil into them Occidental ideals or the principles of good citizenship; yet these people have, in some mysterious way, raised themselves to a standard higher in every way than the Chinese living in countries where missionary work, philanthropy, and legislative interference have been focussed upon them.

There are Chinese families in Java which have been there for five centuries, but the great majority of the 300,000 who live on the island have come there, or are descended from those who came there, in the last 50 years. From their first contact with the Dutch they have been suspected of intrigue and malign purposes, and from time to time have been forced into intrigue and rebellion by the tyranny of their governors. Even now their path to a place in the social and commercial life of the communities in which they live is not made especially smooth; but in spite of all things they have acquired a monopoly of the retail trade of the island and act as middlemen between the Dutch importers and exporters and the native producers and consumers with an acumen and an integrity which arouses the admiration of their rivals. Every Chinese is a merchant or a skilled artisan. There are no unskilled laborers among them, few criminals, and fewer beggars. Many of the wealthy families—and some are millionaires—have invaded the wholsale field and compete with European firms in export and import. The sugar mills throughout a wealthy district are controlled by Chinese, and in the country one finds everywhere Chinese farmers who farm with their brains and money, but never touch a hoe or a cane knife. The Malays do the work and the Chinese direct it.

Until very recently the immigrants from China brought no wives with them and were perforce content to marry Malay women. The hybrids from these unions are legion and violate all the rules of mixed blood in the Orient by being an improvement upon both Chinese and Malays. They have the keen minds and business ability of the Chinese, and the generosity, good nature and pleasant manners of the Javanese Malays.

Least amenable to all these changes, shedding of traditions and improvements are the Cantonese, who in all other communities are the most progressive. If one sees a sallow person slouching in a doorway in Chinese garb, decked out in his native filth and aroma, admiring his long nails and smoking his water pipe, it is safe to assume that he is Cantonese and that he scorns the civilization of his neighbors. Cantonese patriots, of a better and more adaptable class, find an outlet for their devotion to the homeland in the support of the Huei Kuan schools which have been established in every large town in the hope of preserving a knowledge of Chinese language, literature and the Confucian ethics. As a bait to the youth of the land, these schools have been thoroughly modernized and a youngster can study English and other European languages, geography, history and a score of other things under competent instructors so long as he studies Chinese at the same time. As a further inducement to attendance all Chinese instruction is carried on in the Mandarin, or official, language; so that any student who returns to China will be prepared to talk to the educated of all provinces and will not be confined to the petty boundaries of any of the numerous southern dialects.

As a matter of fact Chinese gets scant attention from the pupils, who seem to regard the study as useless drudgery and who devote their whole time and interest to the subjects which will be of most assistance to them in the commercial world. The

Dutch, who have done everything in their power to impress upon the Orientals in their colonies their great superiority, and have represented themselves to the Malays as the first people of Europe, leaders in the West and demigods in the East, have not succeeded in deceiving the astute Chinese. With characteristic far-sightedness, the Chinese have seen that English is the commercial language of the world and have persistently refused to study Dutch, which would be of the most immediate practical use to them. If one enters any large Chinese shop in Batavia, Semarang or Sourabaya, he will find someone who can speak English, but not one Chinese in a thousand knows a hundred words of Dutch. All local business is transacted in Malay and all foreign business in English—not pidgin English either—and Chinese and Dutch are regarded as polite accomplishments of little practical value.

As the Dutch have persisted in regarding the Chinese as a dangerous alien element in the East Indies, and have done little to encourage their educational work or their commercial expansion, the Chinese naturally take little interest in Dutch politics and have cultivated no great loyalty to the Dutch government. Having nothing better to attach themselves to, they have preserved a certain loyalty to China, and in seasons of stress and political turmoil in the old country this loyalty is whipped into a fervent patriotism by the guilds. To recent revolutionary and national movements, the Java Chinese contributed huge sums, and southern propagandists of all parties find refuge and pecuniary assistance in Java. Although Sun Yat-sen has disappeared from political life, at least for the time being, he is still worshipped in Java as the deliverer of the Fatherland and his portrait stands in the entrance to every Huei Kuan school on the island.

The Chinese Government has always regarded the emigrants to Java as a pack of worthless renegades and they have been imperially disowned on more than one occasion. A Dutch governor in Batavia once undertook to massacre all the Chinese in the city, and then, when he had partially succeeded, it occurred to him that his work of extermination might result in a counter slaughter of the foreigners resident in China, so he despatched a hasty apology to the Manchu Emperor Chien Lung. After a period of some suspense, there came a nonchalant reply from the Dragon Throne, in which Chien Lung disowned all interest in the matter. Since the butchered Chinese had been so unfilial to their native land and their ancestors as to leave China and take up permanent residence in a foreign land, they might look to their own interests, said he, and no Chinese official or faithful Chinese subject could be expected to be dragged into their quarrels. The keen interest which the Java Chinese persist in taking in the home land might be regarded as a charitable return of good for evil, and missionaries who have kept some accounts of those who return to Canton and Fukien are convinced that they are a tremendous power for good in their native communities, whether Christian or heathen.

Every year scores of patriotic youngsters, who graduate from the Huei Kuan schools, go to China to enter military colleges in the South or in the Yangtze valley, and eventually find their way into the Chinese army. As a leaven of improvement they cannot be over estimated. They bring back to China a knowledge of foreign affairs which few native-born Chinese can acquire, and standards of honesty and cleanliness, which must have an eventual influence upon their associates.

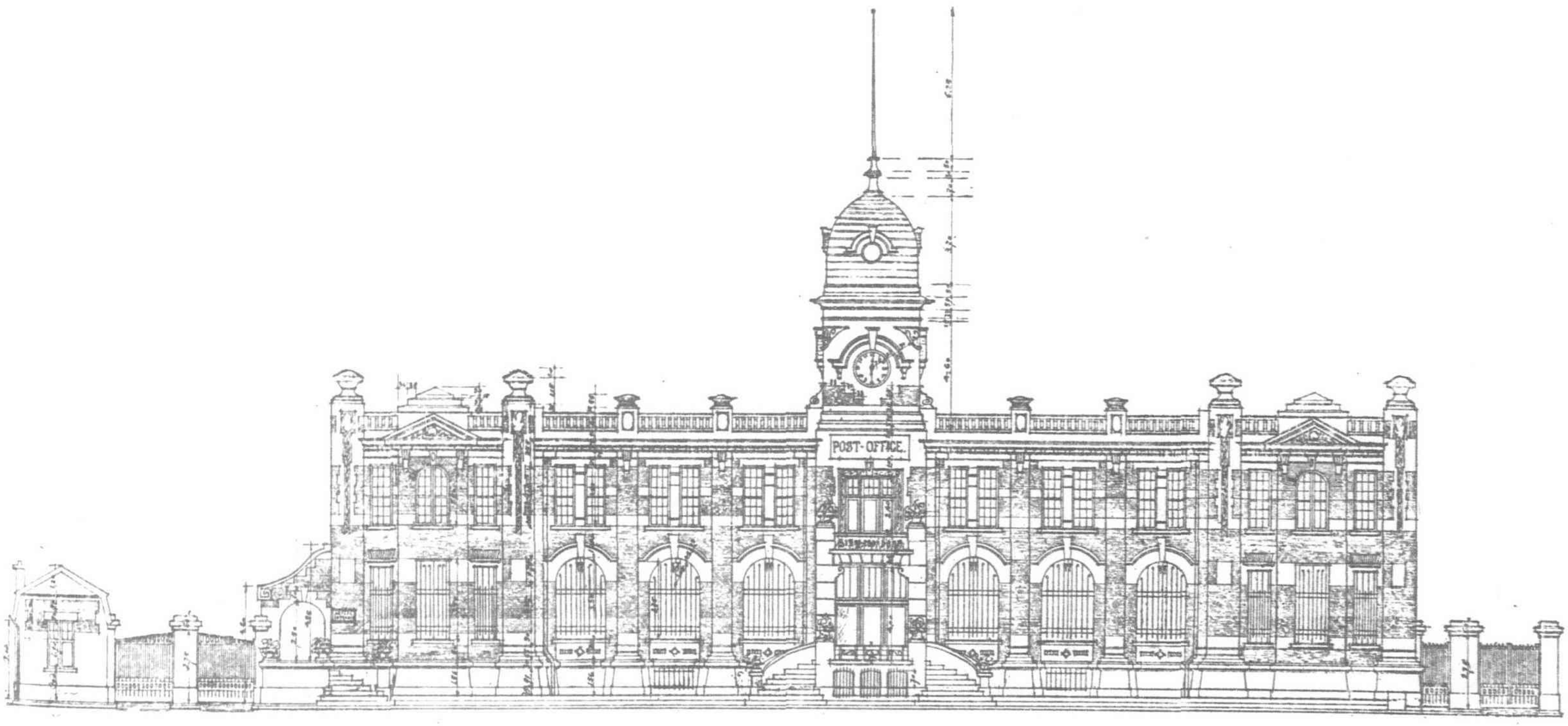
R. G.

Postal Buildings for Kaifengfu

A contract has been let to Pao Hsing Lung, of Tientsin, for the construction of a group of postal buildings at Kaifengfu, Honan Province, for a lump sum of $223,820. Messrs. Charrey & Conversy, of the Credit Foncier d'Extreme-Orient, Tientsin, are the architects. The cost of the head office building may be taken at about $124,000, not including the electric, sanitary and heating installations. The contract also includes the erection of two villas for the Commissioner and Deputy Commissioner. Completion is planned in 16 months.

The building occupies an area of 1,500 square meters, and consists of a ground floor, first floor and a partial basement. It is of brickwork with regular course ashlar basement, the outside faced with pointed bricks with trimmings of stone. The frontage on the main road is 50 meters. The rear wings are one story in height. The first floor will be for the use of the public, the second story for offices, and an extra story is raised on the middle portion of the building to accommodate the archives.

The buildings will be erected on a plot about 11 *mow* in area, situated between the railway station and the city of Kaifengfu.



POSTAL BUILDING UNDER CONTRACT FOR KAIFENGFU

The New Post Office at Tsinanfu

The imposing structure for the use of the postal authorities at Tsinanfu, Shantung Province, is now practically completed. Construction was begun in August, 1918, and the completion of the work, which was planned for some months ago, was only delayed by unforeseen circumstances. The building has a frontage of about 70 meters along the Aul Ma Lou, about three-quarters of a mile from the railway station. The area covered by the main building alone is about 2,000 square meters, while the ground occupied by the whole group, consisting of head office building, outhouses and yards, is about 8,000 square meters.

The post office is a brick building with faced ashlar basement, wood floors and red tile roof; the exterior is of pointed brickwork with stone trimmings, the whole blending nicely. The height, measured from the ground to the cornice, is about 14 meters, while the tower in the middle of the facade rises to over 25 meters. The dome is of concrete, covered with ceramic tiles.

Besides the basement, which is used for storage purposes, there are three stories to the building. The ground floor accommodates the various mail departments, the public space occupies the front part, with three entrances on the main road leading through open porches, and is separated from the general offices by a substantial wood counter and heavy brass grille work. The offices of the Commissioner and Deputy Commissioner, with their secretaries, are on the first floor, which contains also a library, the archives, accounting offices, etc. The east wing is designed to be used as a residence, with a private entrance on the east side. The second floor is within the mansard roof, and is designed for use as offices and also to provide quarters used in connection with the residential flat below.

The cost of the post office building was nearly $225,000, including electric, water and heating installations. Water is provided from an artesian well in a lot behind the post office. Two villas for the use of the Commissioner and Deputy Commissioner are situated in the rear of the postal building. Their cost was about $82,000, including all installations. Messrs. Charrey and Conversy, of the Credit Foncier d'Extreme-Orient, Tientsin, designed all the structures in the group.

A.B.C. Club at Tientsin

On November 1 an Anglo-American-Chinese Commercial Club was inaugurated at Tientsin, in the premises of the former German Club. The function was attended by the Civil Governor (H. E. Tsao Jui), Mr. Pien Shou-ching (President of the Provincial Assembly, who is Chairman of the Club); Mr. Huang Yung-liang, General Yang I-teh, and other leading Chinese; Mr. H. Goffe, C.M.G. (H.B.M.'s Consul-General); Mr. Gilbert King (U. S. Vice-Consul); Major W. S. Nathan, R.E., C.M.G., the Chairman of the British and American Chambers of Commerce; Colonel Morrow (15th U. S. Infantry), and the leading members of the Chinese, British, and American commercial communities. The idea of forming such a club in Tientsin was first suggested by Mr. H. Goffe and after preliminary negotiations with American and Chinese interests the scheme was warmly adopted, the Chinese feeling that the Club supplies a badly needed medium for the exchange of ideas with British and American business men. A similar club was formed in Shanghai about a month previously, and no doubt other ports in China will soon have their "A.B.C." Clubs.

THE TSINANFU POST OFFICE

Conference of British Chambers of Commerce of China

The Conference of the British Chambers of Commerce of China and Hongkong, the first of its kind in the history of foreign relations with China, which was held in Shanghai from November 5 to November 8 inclusive, has elicited from the English and Chinese press more comment than any Far Eastern occurrence since the student strikes. The British trader is traditionally conservative and reticent. He is, moreover, as several speakers at the conference pointed out, an individualist, greatly disinclined to discuss his business policy, if he has one, and much better pleased to do things in his own way, following the groove he has worn, than to adapt his methods to the tastes and needs of his colleagues and competitors in any cooperative scheme. As nearly every editorial writer who has commented on the conference has pointed out, the most salient features of it were the freedom with which information was supplied, the eagerness expressed to establish a better understanding among all British merchants with close cooperation as an objective, and the avowed appreciation of the fact that China was a field in which big enterprises with big capital had and would continue to have an overwhelming advantage.

Another feature of the conference which has been duly noted by the press was the attitude adopted towards China and the Chinese. It was generally stated, and apparently believed by nearly every delegate who lifted up his voice in council, that it would henceforth be "impossible to serve British trade interests without keeping in mind the interests of China." This attitude was reflected in a great majority of the resolutions passed, which epitomise the policy of the organization which will in future be known as the Association of the British Chambers of Commerce of China and Hongkong, and which is scheduled to meet annually in Shanghai under the chairmanship of the chairman of the Shanghai chamber.

These resolutions make interesting reading and should be absorbingly interesting to the Chinese whose foreign policy is at present in as much of a state of flux as it was when directed by Manchu ignorance and prejudice. There are a few items which concern British subjects particularly and are naturally designed to advance British interests, but if one digests the several groups of resolutions passed at the various meetings and works out a policy from them it will be found that it is clear headed, vigorous, and essentially honest and one which any Power whose nationals trade with China on a basis of free competition and equal opportunity, might readily subscribe to as commercial policy and as the foundation of a diplomatic policy.

In fact it would seem that in the framing of these resolutions the traders concerned have departed radically from tradition and have taken into consideration China's internal political state and the political relations between the Powers and China with which British diplomacy must always be concerned when it considers the desiderata of the merchants. It has been too much the fashion in the past for commercial folk in the East, particularly British and American, to regard the diplomats sitting in Peking as their natural enemies, as stupid obstructionists, in spite of whom, rather than through whom, they built up their businesses in China and wrung profits from them. There has been a tendency on the other hand for Diplomacy to maintain a grand aloofness and to regard itself as something too high, too big and generally too magnificent to permit itself to be swayed or moulded by the needs of the pedlar of dry goods and gee-gaws. It would be unjust to all concerned to say that this attitude has been maintained consistently on either hand. The war swept aside all such nonsense in the Occident. Without the closest cooperation and the most sympathetic understanding between commerce and diplomacy there would have been no Allied victory, and this has been so apparent throughout the world that it has made something of an impression even in the most remote and hidebound communities. The conference in Shanghai attended and addressed by Sir John Jordan and by members of the British consular service gave the delegates from all parts of China ample opportunity to meet their minister and to hear him express himself in his characteristically human and sane manner, which savours so little of the stodginess that is associated with Peking. So far as the British are concerned this should serve to clear the atmosphere of a great deal of antiquated prejudice and to start them off on a new career in China with cooperation, intelligent official support and a consideration for Chinese interests and sensibilities as their inspiration. From such a career other nationalities might also take an example and an incentive.

The conference, representing the Hongkong Chamber and the Chambers of Commerce of fifteen Chinese cities opened in the British Supreme Courtroom on the morning of Wednesday, November 5. Mr. H. A. J. Macray, acting chairman of the Shanghai Chamber of Commerce, was elected to preside and Mr. E. M. Gull, Secretary of the Shanghai Chamber and editor of the Chamber of Commerce Journal, was elected secretary of the Conference. After this initial business had been transacted Sir John Jordan, who had arrived the night before from Peking, accompanied by Mr. Archibald Rose, Commercial Secretary to the Legation, entered together with the Shanghai Consul-General Mr. J. W. Jamieson. The chairman of the Conference initiated a motion of welcome to the British Minister which was seconded by Mr. S. H. Dodwell, who represented the Hongkong Chamber of Commerce. Both gentlemen spoke at some length after which Sir John replied. He reviewed briefly the important happenings in the Far East to which he had been a witness during his forty-three years' service in the Consular and diplomatic services and then talked of the commercial and industrial future of China, giving expression to an optimism which must have slightly surprised many in his audience who have found existing conditions in China either depressing or exasperating. There were several passages in his address which were particularly interesting because they might be variously interpreted. The following is one of them:

> "I believe we have reached the stage in which our treaties and agreements, useful as they are as charters of our rights in China, will require to be supplemented by other arrangements. Trade refuses to be confined to narrow grooves and seeks further outlets in all directions. The great remedy for all this will be found in the extension of railway communication which proves a wonderful

solvent of all difficulties. China has less than 7,000 miles of railways—she requires at least 50,000, and the problem of how this great desideratum is to be supplied will doubtless receive your earnest attention as it has mine during all the years I have been in Peking. The construction of railways will necessitate an immense outlay, and as there unfortunately seems little prospect of China supplying the money herself, we can only hope that it will be forthcoming from foreign countries in spite of the urgent calls in other parts of the world and that China herself will come to see that a unified system of railways makes for safety and efficiency."

Speaking of China's industrial future, Sir John said: "Unless I mistake the signs of the times, China will soon embark upon a great industrial career, for which her raw materials and the genius of her people are admirably suited. I see no fear that this development will prove any menace to the industries of our mother country. . . . . I believe that a great future lies before our people in supplying technical and financial assistance and business organization, directed towards the increase of output and the production of real wealth in China. That wealth will contribute to the wealth of the whole world and will help to repair the waste of war."

The resolutions passed at the various meetings have been described as trite and, while they do not enter into a full discussion of the questions at issue and the reasons which moved the conference to pass them, they are sufficiently well worded to convey perfect understanding to any resident of the Far East who follows the discussion of public events in the press. The summary which follows, though still more trite and cryptic than the originals, will, it is hoped, serve as a record of the agenda and as an index to the policy of the newly organized Association. The following convey the purport of the resolutions:

The British Government is asked to give an indication of the principles it intends to adopt in matters of trade with Germany and it is hoped that British manufacturers and exporters will use British agents abroad.

The reaffirmation of the policy of the "Open Door" as an essential commercial principle, accompanied by an international agreement for the abolition of spheres of influence is deemed advisable.

The discontinuance of the use of silver bullion and the standardization of the dollar and of subsidiary coinage with a mint at Shanghai for the free coinage of dollars are urged.

The British Government is asked to move the Chinese Government to pass a law securing protection to all bona fide trade-marks used in China.

Though sympathizing with the Chinese desire to abolish extra-territoriality, the Conference considers the establishment of a stable Government, satisfactory laws, and arrangements for the administration of such laws essential preliminaries to the surrender of extra-territorial rights. The British Government is reminded that according to Article XII of the Treaty of 1902, provision for British assistance in such preliminary work is made as follows: "China having expressed a strong desire to reform her judicial system and to bring it into accord with that of western nations, Great Britain agrees to give every assistance to such reform, and she will also be prepared to relinquish her extra-territorial rights when she is satisfied that the state of the Chinese laws, the arrangement for their administration and other considerations warrant her in so doing."

"That the basis of allotment and general principle of the allocation of freight space by the London Homeward Conference steamers be discussed with a view to ascertaining whether firms in outports receive fair treatment."

In view of the world-wide increase in rates of freight and cargo values, pressure should be brought to bear upon shipping companies to increase cargo valuations to something more commensurate with present day value.

In view of the increasing importance of Swatow as a port, a submarine cable service should be established or the Chinese Government should be encouraged to improve the telegraph service and the efficiency of the local staff.

Likin should be abolished according to the terms of the Mackay Treaty which provides for an increase in import duties but guarantee should be obtained against the direct or indirect taxation of merchandise in the interior.

Anglo-Chinese cooperative movements as evidenced in schemes for cooperative enterprises and social clubs are welcomed.

The Chinese Government should be urged to institute copyright laws, securing protection to British authors, publishers and copyright owners in China.

Piracy should be suppressed in the province of Kwangtung and more especially in the Canton Delta.

The commercial diplomatic service in China should be strengthened by the addition of secretaries and assistants stationed at Shanghai, Tientsin, Hankow and Canton.

An increase in the scale of pay existing in the British Civil Service in China is encouraged as an imperative necessity.

The remission of a part of the Boxer Indemnity is advised to aid British educational institutions for Chinese in the Far East and to meet the cost of education of selected Chinese students in the United Kingdom.

Satisfaction is expressed with the work accomplished by the commission for the improvement of the river system of Chihli Province and it is suggested that a portion of the customs or salt surplus be set apart to ensure steady financial support.

A Conservancy Board should be established by the Chinese Government to survey the Yangtze River and tributary waterways and to devise adequate measures for the aid of navigation.

The British Government is urged to control the production and export of such habit-forming drugs as opium and morphine in conformity with measures adopted by the International Opium Convention in 1912, and to limit their export to such countries as have established laws restricting their use to legitimate purposes only.

Diaphones and wireless position finders should be established on the China coast where there are light houses.

British firms should provide facilities for the acquisition by their staffs of the Chinese written and spoken languages.

Further ships should be released for the Far Eastern trade.

The time has come for a comprehensive survey of the possibilities of the various Chinese coast ports in relation to trade routes and areas, actual and potential.

The Chambers of Commerce represented at the Conference, should be enrolled in an Association which should meet annually at Shanghai.

The British Government is asked to consider the need for the development of British publicity work in China, in respect to the diffusion of general and commercial news; and it is further suggested that the Journal of the Shanghai Chamber of Commerce be recognized as the journal of the new Association.

The First Railway in China

Some little known details of the Original Shanghai-Woosung line

Nearly all of us know that the first railway in China was a narrow-gauge line between Shanghai and Woosung. Agitation for it was begun in 1865, with the result that in August, 1875, the Woosung Road Company came into being for the purpose of building a line of 2-ft. 6-in. gauge over the length of nine miles between the city of Shanghai and the village at the mouth of the Whangpoo. In the article we have given some details of the first railway which have been taken from an old manuscript, and have reproduced some rare old photographs of the time the line was under construction and in operation. The brief career of this insignificant stretch of railway meant so much in the history of railway transportation in China that many of the details, and the fading photographs, are printed here for the sake of their preservation.

THE EDITOR.

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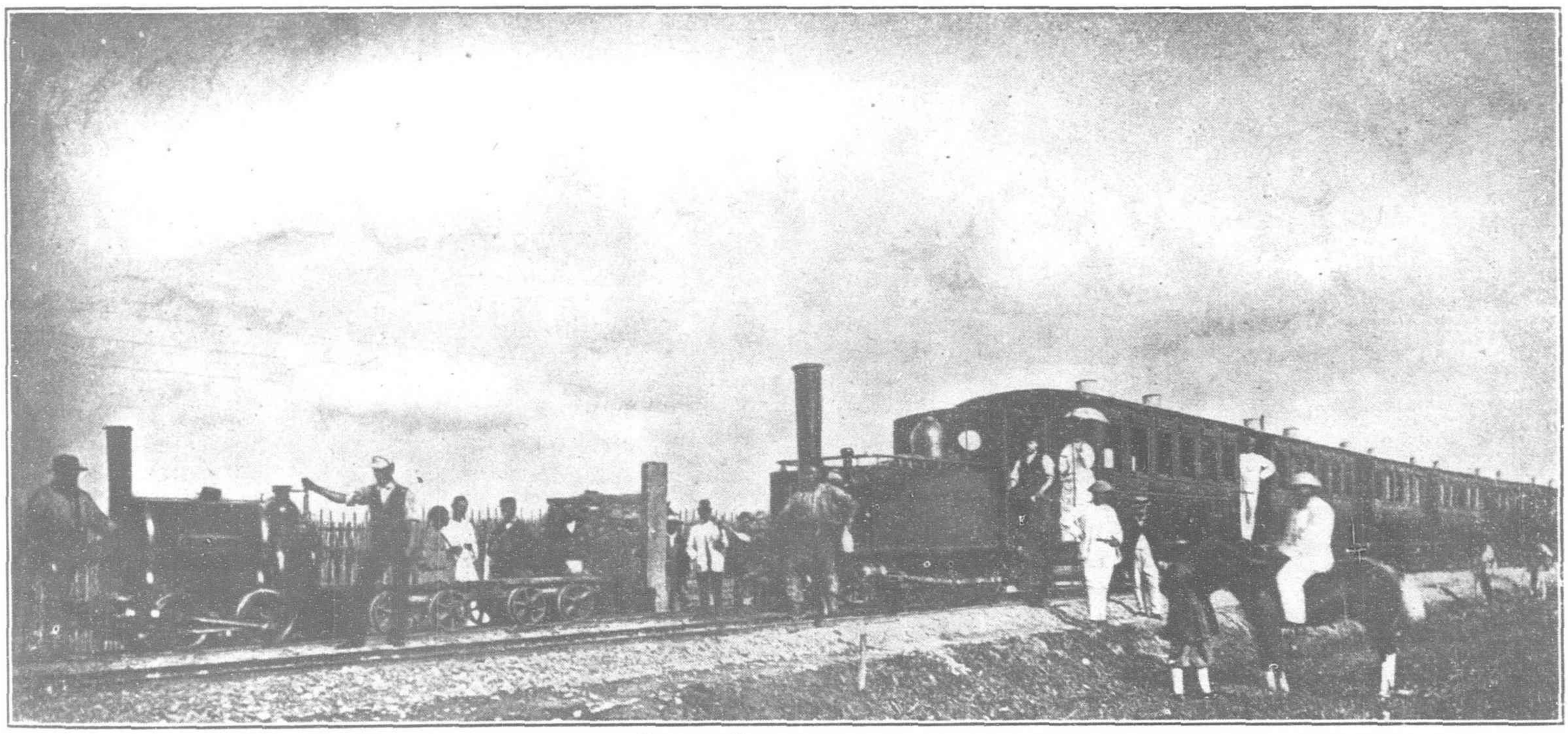
It was in October, 1875, that Mr. Gabriel James Morrison, M. Inst. C. E., left England for Shanghai, viâ America, thus marking the beginning of the little railroad which was to run between Shanghai and its neighboring village of Woosung and to open China to steam communication on land; for he was appointed to hold the two-fold office of company's engineer and contractor's agent for the Woosung Road Company, which had been organized in August of that year. In the same month five other brave souls who were to become his assistants sailed from London to Shanghai direct, by the steamer *Glenroy*. These were John Sadler, foreman; Wm. G. Jackson, chief working engineer; David Banks, second working engineer; John Sadler, jun., second foreman; and George Sadler, general assistant. All of these men set out stoutheartedly, although each must have felt some misgivings at the great odds they were to face in having part in the construction of a railway which was to overcome the prejudices of the Chinese, who were only just becoming accustomed to steam transport on the water and were vigorously opposed to seeing their lands encroached upon, the peace of their dead disturbed, and the occupation of their boatmen and carrying coolies taken away by the "fire carriage," as they came to know the locomotive. They had to face, also, the perils of disease and all the other evils which

THE FIRST LOCOMOTIVE WAS INTRODUCED IN CHINA ON THE SHOULDERS OF COOLIES. SIXTEEN MEN CARRIED THE "PIONEER" FOR "THREE FURLONGS WITHOUT STOPPING TO DRAW BREATH"



HERE ONE OF THE 9-TON ENGINES WHICH SUCCEEDED THE "PIONEER" IS COUPLED TO THE FIRST TRAIN ON OPENING DAY. THE LITTLE ENGINE IS RELEGATED TO A SIDE-TRACK

the pioneers of the time were forced to undergo. One of them, Mr. Sadler, suffered so much from dysentery that he was sent to Chefoo for a change of air, where he died on September 15, 1876. But the *Glenroy* landed at Shanghai on December 20, 1875, and Mr. Morrison arrived on January 8, and all hands set to work, for they had brought with them the necessary materials for the beginning of the little line, including the "Pioneer," a little locomotive weighing but 30 cwt. in running order.

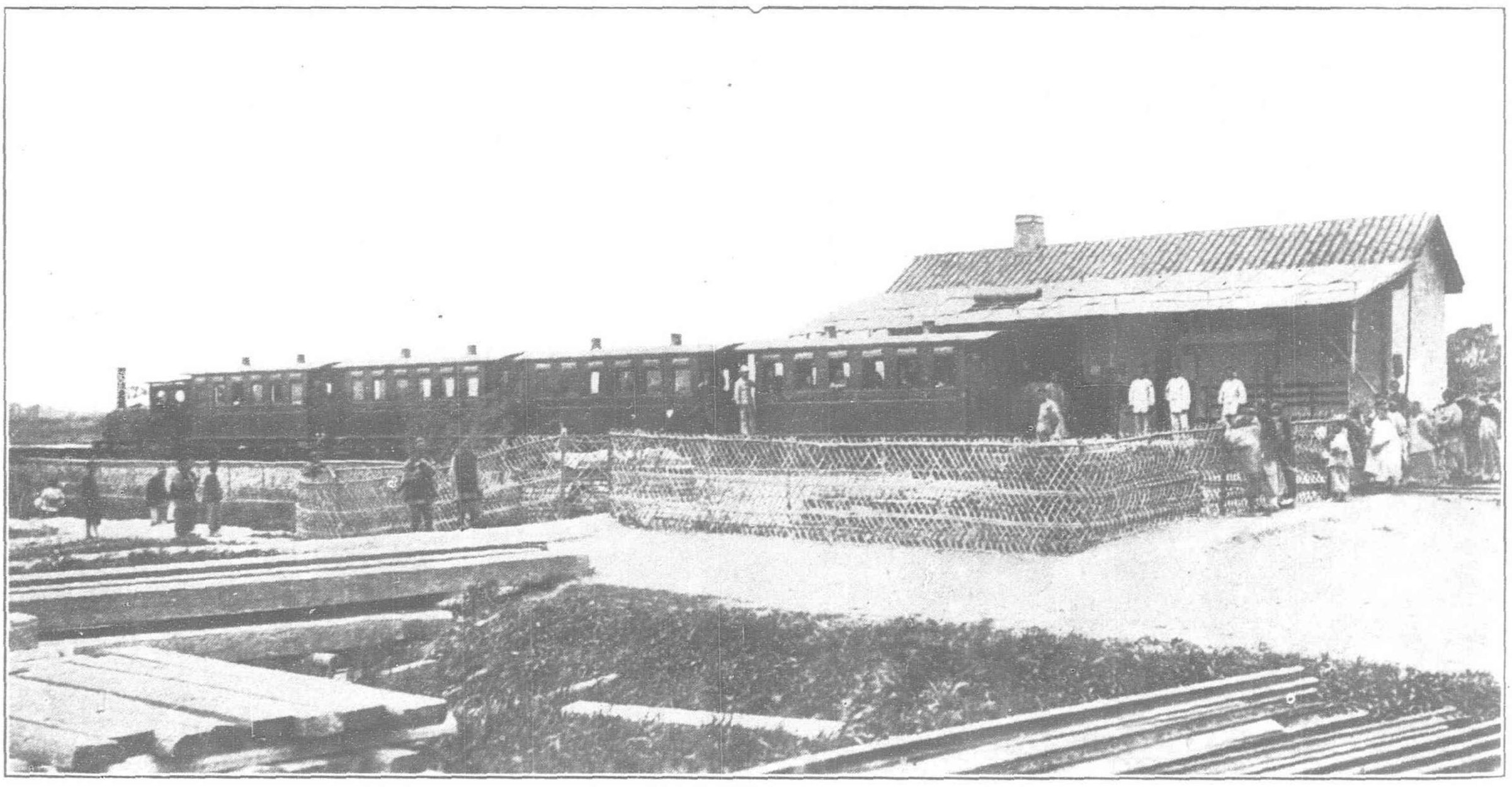
The purchase of the land was the chief difficulty, and the extent of the negotiations which were carried out can be imagined from the fact that there were over 400 families who had to be consulted and who had to reach a decision before the 9 miles right of way was purchased. In many instances ownership consisted chiefly in a grave of some relative more or less valued in life, but highly valued in view of an approaching railway. However, the difficulties were all overcome sooner or later by the liberal use of silver and without any dispute or disturbance. One unfortunate man who had negotiated the sale of some land to the company was haled before a magistrate and beaten to death: but his offence was announced as an attempt at defrauding a relative of his proper share of the purchase money. His land was on the further side of a wide creek at the Woosung end of the line, and perhaps part of the offence for which he lost his life was really that of giving the railway a footing on the further side of what might have been considered as a natural barrier.

Besides purchasing the land, it had been necessary to proceed with the earthwork to prevent the old owners from re-entering and cultivating it again, as they would have done if it had not been visibly occupied. For this reason a practicable embankment, eight feet in height, was thrown up to insure possession.

The staff, upon arrival, gave its first attention to the building of about 15 small wooden bridges over the various creeks. So numerous were the watercourses on the route that, in addition to the bridges, some 20 wooden culverts were constructed. On January 20, 1876, rail-laying was begun when Mrs. Morrison drove the first spike into the first rail. After that the laying of plates and the work of ballasting progressed with rapidity. On February 14, 1876, the "Pioneer" made its first trip over three-quarters of a mile of rails, and the news was cabled to the promoters in England. Thousands of Chinese flocked to see the little engine at work. The Taotai of Shanghai became greatly alarmed at the interest of his subjects in the institution, and so pressing were his demands for a discontinuance of the work that a compromise had to be made. It was agreed that the engine would not be run for a month, but construction was to proceed until he should receive definite instructions from Peking. When the month had expired, and no adverse instructions had been received from Peking, the trips of the "Pioneer" were resumed. The interest of the people, whose curiosity had been roused by the antagonism of the officials to the construction of railways and had been further sharpened by the stoppage and resumption of the "Pioneer's" trips, flocked to see the working of the little locomotive in numbers greater than before.

Hundreds of natives gratified their ambitions to ride on the "fire carriage," and on every return trip there were gratuitous passengers. Nor was this desire to try the railway limited to the lower orders. Several times during the progress of the works, Chinese passengers of high rank came for a ride, arrayed in their best clothes. No other accommodation was available, so on such occasions Mr. Morrison would have seats placed in the trucks, which were covered with red baize, while a carpet of the same material was laid in the truck. As the works approached completion, various sinister rumors began to float in the air as to the intentions of the officials, and a very politic step was taken in inviting various Chinese notables and all the foreign consuls to take an excursion trip. All attended in full uniform to give the full weight of their official position in the right direction, and the excursion took place on May 26, 1876, when the passengers seated themselves in five ballast trucks temporarily converted for passenger carrying and took a ride of five miles.

The work continued to go on without interruption. On May 30, 1876, the first of the permanent engines, weighing but nine tons in working order although large in comparison with the "Pioneer," arrived and work was begun on its erection. On June 12 it made its first trip—this time to

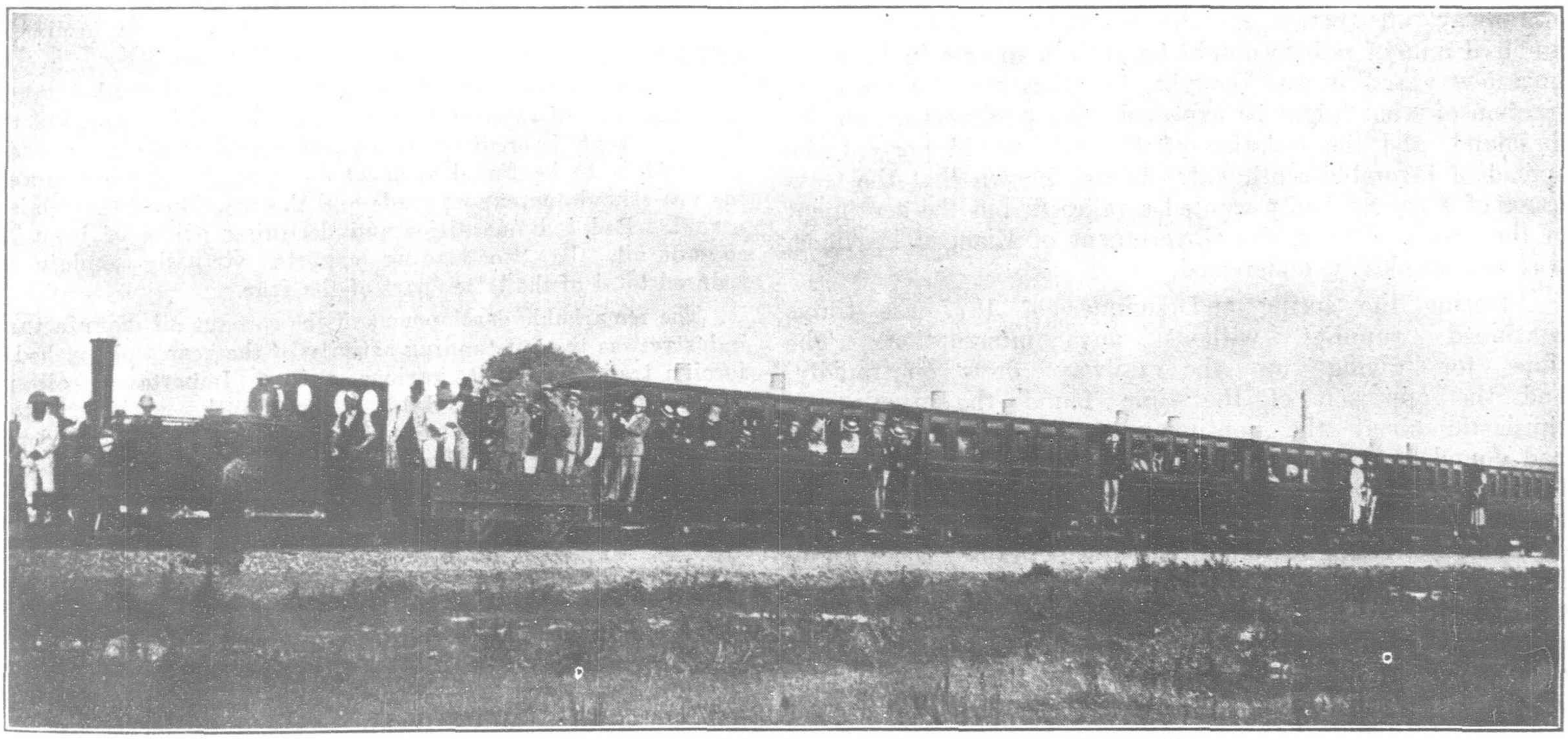


THIS WAS THE WOOSUNG TERMINUS OF THE SHORT-LIVED SHANGHAI-WOOSUNG LINE

Kiangwan, a journey which it performed at the rate of 25 miles an hour. The carriages arrived at about the same time. The first-class carriage was 15-ft. in length and accommodated 16 passengers; the second-class vehicle was of the same length, but accommodated 18 passengers; and four third-class carriages each accommodated 96 passengers in a length of 18-ft. Twelve goods trucks, 10-ft. in length, with a carrying capacity of 5 tons, arrived at the same time. At that time it was found that the proportion of third-class passengers entirely outbalanced the passengers in the other classes, and this holds true on Chinese railways to this day. The proportions then were 80 third-class passengers to one first and two second-class passengers.

As July 1 had been specified as the day for opening the railway, on June 30, 1876 about 150 of the European residents were invited to make the opening trip of the first permanent train, over the first five miles of the line. The feat was successfully performed when a train laden with 200 passengers made the run at a speed of 15 miles per hour. On the next day the Chinese were invited to travel free on the railway, and great, indeed, was the crowding to secure places in so small a means of conveyance. All went well, to the great delight of the people. On July 3 traffic commenced, and receipts were at once of the most satisfying character. The news was transmitted to England, whereupon the company gave a dinner at the Langham Hotel to celebrate the event, on July 20. On the same day the telegraph brought a demand from China for another complete set of carriages. The request, coming on the very day of the feast, seemed to the subscribers a good omen for the fulfilment of their best hopes. Of course the carriages were manufactured and sent out to China without delay.

All went well until August 3, 1876, when an unfortunate native was killed by a train. The man was walking towards the train. When the whistle blew he stepped from the line, but, still headed for the train, he stepped on the track again when the locomotive was about six yards from him. It is interesting to observe that this is the only case of suicide on record in the history of the first railway in China, despite the fact that some of the older reference works on China published abroad made extinction under the wheels of a moving train the favored means of suicide in China. The one man whose death by this means is mentioned in connection with the Shanghai-Woosung line appeared to be a soldier. No one turned up to claim damages for his death, nor even could any evidence be obtained as to his name or identity. He appeared to have been without means, without friends, and alone in the world —these conditions often making for suicide in China. It was, at any rate, clear that he had not been hired for the purpose, for in that case relatives would have been produced to claim damages and to assist in the clamor. David Banks, the engine driver, was put on trial before his Consular Court for manslaughter. He was honorably acquitted, and costs were given against the court. At about this time the British Minister was engaged in settling the dispute about the death of Mr. A. R. Margary, who, while acting as the interpreter and guide to Col. Browne's mission from Burma, was killed at Manwyne, Yunnan, on February 21, 1875, after having crossed the frontier in advance of the main body of the mission; and it appears that the Chinese did not press claims for the death of the soldier under the train, preferring to hold the case as an offset to the claim for the death of Mr. Margary at the meeting of plenipotentiaries which was held in Chefoo. The conclusion of the Chefoo Agreement took place on September 13, the terms embracing articles aimed at opening the way between India and Yunnan; opening new ports to trade; giving British importers of opium the right of keeping the product in bond until selling time, when duty would be paid, etc. Meanwhile, on receipt of a communication sent by special steamer from Chefoo, to the railway committee at Shanghai, asking that trains should cease running pending negotiations, for fear that some serious accident might happen which would bring about complications, the line was closed down on August 23. After the Chefoo Agreement was signed, negotiations were commenced on the subject of the railway. It was now found that a mistake had been made in closing it. Its first position was unassailable on any just grounds, but the Chinese urged that in all other countries railways are under government control, while in China there were no laws on the subject of railways. But the railway had been closed pending an international discussion, and this virtually placed the whole undertaking at the mercy of the Chinese. The terms eventually made were that the provincial government should buy the railway at a price corresponding with its cost; that the money should be paid in three half-yearly instal-



FOREIGNERS CROWDING AN EXPERIMENTAL TRAIN AS GUESTS OF THE RAILWAY

ments, and that until the whole should be paid the Company should work the line. These arrangements were made with the assistance of Mr. Mayers, Secretary of the British Legation. The first instalment was paid down, and this gave the railway just one year of grace for practical work. This being secured, the other items of the bargain were not so closely scanned for the desideratum was to give China one year of railway experience, with the hope that only one result could follow. Even the stipulation that no goods were to be carried was not seriously dwelt upon, although this stipulation deprived the railway of more than half its earning power.

The line was reopened, with seven trains daily in each direction, and first-class fares given at 50 cents to Kiangwan and $1 to Woosung Bar or Woosung Creek; second-class fares at 25 cents and 50 cents respectively; and third-class fares 100 cash and 200 cash respectively. It was announced that 1,200 cash would exchange for one dollar, and that dogs would be charged 10 cents each for any distance. So much labor was involved in counting the cash that the company issued tickets at so many to the dollar. The second opening took place on December 1, 1876—this time the whole distance to Woosung. Many Chinese of high rank attended this time, and drank success to the undertaking in the champagne of the Company. The Taotai and his officers were of course invited, but finally decided not to take such a very serious step.

Trains continued to run steadily, the traffic frequently amounting to £27 per mile per week, this nearly equalling the average receipts for passenger traffic on English railways, although but one train was at work. The limited tenure of the company rendered it unadvisable to purchase additional engines and carriages, and the use of but one train was continued.

At first it was hoped that the Chinese would continue the working of the line after the completion of its purchase, but as time passed away and no definite arrangements were made this hope gradually disappeared. As it became apparent that the government intended to abandon the railway, and that the Governor of the island of Formosa intended to construct a line from one end of the island to the other, in 1877 Mr. Morrison paid a visit to Formosa. After investigation it was thought that the construction of a railway in Formosa, although this appeared an impossibility because of physical and political obstacles, would not advance the cause of railway construction on the mainland of China. Two hundred mile of railway might be made a success in Formosa in a few years, it was thought, but that would be a mere fraction of what might be expected from perseverance on the mainland, and the isolation of Formosa would prevent the spread of favorable sentiment. It was known that the Governor of Formosa badly wanted a railroad, but the sentiment of the present owner, the Government of Kiangsu Province, was not so clearly understood.

During the spring and summer of 1877 the trains continued running without any interruption. The time for giving up the railway drew on rapidly, and the approach of the time found the people enthusiastic about the continuation of its service. They had found that the value of their property had increased, that trade had been extended, and that no one had been thrown out of work by the railway. Some 145 merchants of Shanghai, Kiangwan and Woosung petitioned the Viceroy for a continuation of the service, but no reply was received. On October 20, 1877, the final instalment of the purchase money was to be paid when the line passed into the hands of the Chinese authorities. On October 19, officials, commissioned for the purpose, intimated to the company that they would be ready to pay the balance of the purchase money the next day. It was then arranged that the last train should run from Shanghai at noon and from Woosung at one o'clock on the 20th. At two o'clock the road was handed over. A special train was made ready for the officials, to enable them to inspect their newly acquired property; but they preferred to make the journey in their official chairs. It took three hours for their journey to Woosung, and nobody knows how many hours in returning to Shanghai. Their preference for their own means of travel afforded an excellent illustration of the contrast of views of the governed and the governing. The closing scene showed the people crowding the railway, with the last train the longest and the most crowded in its history, and their rulers preferring chairs!

Rails and roadbed were torn up and wiped out, buildings were pulled down, and all the material was shipped to Formosa shortly afterward. With the materials rusting away on a Formosan beach, the story of the brief career of the first railway in China is ended. Now we know that the railroad history of China is really just begun, for in the long intervening years progress in building has been slow and China has now only a moderate beginning for a national railway system as we understand it in Western countries.

Philippine Foreign Commerce in the Year Ending June 30, 1919

Full returns of Philippine foreign trade for the year ending June 30, 1919, just compiled and made available by the Bureau of Insular Affairs of the War Department, show still further increases in the value of both imports and exports over the already exceptional totals of the previous year.

The import total reached the enormous sum of $107,774,263, or about thirty per cent. more than that of the previous year, and about double the pre-war average, but advancing prices rather than increased volume of business was the leading factor in the larger figures. An important exception, however, is to be noted in the machinery trade, which more than doubled in value and was conspicuously made up of oil-extracting and sugar machinery, large imports of which for the development of leading export industries of the islands, represent both a present and a future importance to Philippine trade. The important trade in cotton textiles, on the other hand, fell far below the phenomenal quantity of 1916, and at equally exceptional prices declined to very small proportions in the latter half of the year.

The export total of $122,729,238 somewhat exceeded that of 1918, but it is of interest to note that of this huge sum less than forty per cent. is credited to the latter half of the year, and in this fact is to be found some measure of the slowing down of the war-stimulated export trade and the reaction of the armistice period. Reduced quantities and declining prices of hemp and coconut oil, the two leading exports, virtually explain this reduced total of the latter part of the year.

The remarkable development of the coconut oil manufacturing industry was the outstanding activity of the year and touched the foreign trade figures at various points. Imports of oil mill equipment furnished the leading item in the machinery total, while exports of oil became a close rival of hemp for leadership in the islands' trade. This reacted upon the important copra trade of the past, which virtually disappeared in the latter half of the year, while in the same period the islands, with a pre-war record of one of the largest copra producers for export in the world, passed into the ranks of the importers. Imports during the closing six months amounted to 17,093 long tons—chiefly from Dutch East Indies, while shipments at the end of the year had dwindled to merely nominal amounts from the outlying southern ports to the neighboring market of Singapore.

The armistice proved highly beneficial to the sugar trade. Distance from the important markets operated unfavorably to the

participation of Philippine sugar in the general high prices of the war period, but with the release of tonnage and declining freights following the armistice, local prices reflected an increasingly larger share of the continued high prices of the great consuming centres. The average figure realized was 4.3 cents as compared with 2.6 cents for the earlier half of the year, but unfortunately the estimated outturn of the new crop, owing to weather conditions has been reduced very low, and shipments in the latter half of the year at these higher prices were exceptionally light. Another and a permanent factor in Philippine sugar prices is the increasing output of high-grade sugars. Centrifugals comprised twenty-seven per cent. of the quantity of sugar exported during the year and realized an average price of a cent and three-quarters a pound above the open-kettle product that it is steadily supplanting.

Trade in both cigars and tobacco continued active and at higher prices, with exports of each in much larger quantities than ever before. Shipments of foreign merchandise more than doubled in value and exceeded four and a half million dollars, a sum serving on the one hand to discount the import total, and on the other to emphasize the growing importance of Manila as a distributing centre—chiefly for American goods. The proportion of the United States in the trade of the islands for the year did not materially differ from that of 1918, constituting sixty per cent. of all imports and sixty-five per cent. of the export total.

FOREIGN COMMERCE OF THE PHILIPPINE ISLANDS.

Compiled by the Bureau of Insular Affairs, War Department.

Imports		Twelve months ending June, 1919 Quantity	Value
Automobiles	No.	1,409	$1,490,511
United States	,,	1,409	1,490,511
Cement	Bbls.	228,769	580,708
United States	,,	101	1,236
China	,,	61,710	147,953
French East Indies	,,	75,191	129,900
Japan	,,	73,432	224,556
Other countries	,,	18,335	77,063
Coal	Long tons	396,934	3,028,140
United States	,,	—	—
China	,,	107,769	517,936
Japan	,,	255,807	2,300,461
Other countries	,,	33,358	209,743
Cotton, and manufactures :			
Cloths	sq. yds.	80,977,816	16,540,658
United States	,,	67,054,735	13,769,986
United Kingdom	,,	4,124,950	960,109
Japan	,,	6,841,925	1,274,820
Other countries	,,	2,956,206	535,743
Thread		—	840,035
United States		—	631,752
Other countries		—	208,283
Wearing apparel		—	3,755,821
United States		—	1,758,463
Japan		—	1,903,475
Other countries		—	93,883
Yarn	lbs.	2,875,799	1,845,211
United States	,,	3,190	2,237
United Kingdom	,,	206,152	278,134
Japan	,,	2,090,190	1,277,317
Other countries	,,	576,267	287,523
All other		—	2,328,167
United States		—	1,423,145
United Kingdom		—	330,367
Other countries		—	574,655
Iron and steel :			
Machinery		—	7,100,895
United States		—	6,378,893
United Kingdom		—	13,326
Other countries		—	708,676
All other		—	7,697,795
United States		—	6,864,915
United Kingdom		—	89,861
Other countries		—	743,019
Illuminating oil	galls.	9,756,425	2,420,686
United States	,,	9,421,893	2,369,884
Dutch East Indies	,,	334,478	50,787
Other countries	,,	54	15
Leather, and manufactures :			
Boots and shoes	pairs	680,548	1,542,270
United States	,,	598,836	1,521,050
Other countries	,,	81,712	21,220
All other		—	1,106,453
United States		—	919,367
Other countries		—	187,086
Meat and dairy products :			
Condensed milk	lbs.	7,464,595	1,360,884
United States	,,	6,227,574	1,037,782
United Kingdom	,,	84,106	17,727
Other countries	,,	1,152,915	305,375
Fresh beef	lbs.	6,904,911	737,791
United States	,,	860	223
Australasia	,,	1,695,133	213,161
China	,,	5,208,863	524,407
All other		—	1,761,068
United States		—	627,788
Australasia		—	333,459
Other countries		—	799,821
Paper, and manufactures		—	2,225,677
United States		—	1,181,430
France		—	562,653
Japan		—	448,093
Other countries		—	233,501
Rice	Long tons	146,244	8,488,590
United States	,,	—	17
French East Indies	,,	123,068	6,547,212
Siam	,,	19,101	1,736,584
Other countries	,,	4,075	204,777
Wheat flour	Bbls.	310,000	2,546,815
United States	,,	43	729
Australasia	,,	274,978	2,304,412
Japan	,,	1,541	8,867
Other countries	,,	33,438	232,807
All other articles		—	40,376,088
United States		—	24,675,736
Other countries		—	15,700,352
Total imports (1919)		—	107,774,263
Total imports (1918)		—	83,763,290

Exports		Twelve months ending June, 1919 Quantity	Value
Manila Hemp	Long tons	132,648	$41,829,640
United States	,,	69,829	24,203,659
United Kingdom	,,	47,517	12,849,099
Japan	,,	9,536	3,249,791
Other countries	,,	5,766	1,527,091
Coconut oil	Long tons	128,789	35,541,361
United States	,,	120,829	33,406,387
Other countries	,,	7,960	2,134,974
Sugar	Long tons	236,391	17,201,625
United States	,,	91,454	8,174,817
China	,,	40,700	2,646,453
Hongkong	,,	66,794	3,982,416
Japan	,,	35,029	2,189,239
Other countries	,,	2,414	208,700
Copra	Long tons	14,369	1,426,585
United States	,,	13,284	1,270,803
France	,,	—	—
Spain	,,	—	—
Other countries	,,	1,085	155,782
Cigars	thous.	397,716	8,601,889
United States	,,	276,289	6,757,451
Australasia	,,	8,075	161,111
China	,,	34,348	600,741
Hongkong	,,	8,469	133,145
Other countries	,,	70,535	949,441
Unmanufactured tobacco	lbs.	48,078,911	5,629,827
United States	,,	3,311,384	836,163
France	,,	9,130,549	930,095
Spain	,,	22,726,346	2,451,038
Other countries	,,	12,910,632	1,412,531
Maguey	Long tons	9,430	1,442,491
United States	,,	744	105,936
United Kingdom	,,	2,256	345,161
Other countries	,,	6,430	991,394
Knotted hemp	lbs.	662,297	544,479
United States	,,	269,509	229,920
France	,,	65,181	52,480
Italy	,,	174,187	137,650
Switzerland	,,	82,489	66,028
Other countries	,,	70,931	58,401
All other articles		—	10,511,341
United States		—	4,347,412
Other countries		—	6,163,929
Total exports (1919)		—	122,729,238
Total exports (1918)		—	116,614,611

The Reasons for Japan's Opposition to the New Consortium

By a JAPANESE

[*Since there is much genuine opposition in Japan to the proposed Consortium of International Bankers for the financing of China it is interesting to know upon what grounds that opposition is based. A Japanese writer sends us an article in which he sets out to give the Japanese point of view, and we are publishing his contribution without alteration to the English he uses or to his style.*—THE EDITOR.]

In discussing Japan's position as regards the American proposition of a new international banking consortium for China, we should keep in mind: First, that Japan needs raw material for her manufacturing industry and a market for her products; Second, that there is nowhere in the world open more conveniently to Japan than China where Japan may secure what she wants; Third, other great Powers of the world possessing their sources of raw material at home and in their dependencies sufficient to keep their manufacturing industry going without depending upon supply from China, Japan will be seriously handicapped in her race with other Powers unless she could defend her position of vantage in China. These three points, I believe, constitute the major premise from which deductions should be made.

Aside from the question of whether the Chinese are willing to accommodate Japan in getting what she wants in China—for that question is not a main point in the present discussion—the Japanese people regard that there is no reason why other foreign nations should object to Japan's adhering to her special privileges which she has acquired in China, that is as far as her relations with foreign powers are concerned, unless they intend to prevent Japan from increasing her advantages for free competition in the world market and to keep her national growth to a "respectable" limit. The Japanese see no reason why her growth should not be free and untrammelled, so that in due course of years she may be enabled to claim her position of a great power, both in name and in fact, as great as England or America. This is the manful aspiration of the Japanese nation, which, from an unbiased view point, should be rightly recognized.

The American proposition in regard to the new Consortium for China does not ostensibly object to the Japanese nation having this manful aspiration. If loaning of money to China is internationalized and there is to be no hitch in the general scheme of developing China's resources, Japan, because of her geographical propinquity to China, may be able to secure the benefits accruing from such development in China. There can be no denying the fact that this American proposition is an ideal one on principle. But in reality, such proposition is calculated to reduce Japan, to say nothing about England, France and other European Powers, to a dead level of mediocrity with any new comers. If it were in a Utopia, where no nation needs to worry about its own particular interests, but every nation needs only to look after the general welfare to insure its own welfare—for instance, as in a democratic social club with its members enjoying equality of club privileges for equal payment of dues and discharge of other obligations—it will be all well. But, who can assure Japan, even though the League of Nations was voted for in the Paris Peace Conference, that, if she would surrender all her special privileges in Manchuria, Mongolia, and elsewhere in China, she will be able to enjoy the privileges as a great power as for instance England or America and that her people will be made as wealthy and powerful individually as the British or the Americans are?

So long as there is no definite guarantee as to Japan's safe conveyance to the position of the great and powerful, prosperous and happy, altogether beyond any worry for the morrow, the American proposition is unacceptable to Japan, unless Japan is compelled by *force majeure* to accept the fate. After all that have been said and may be said about the advantages and disadvantages of the proposition, this, in my opinion and in the opinion of many other Japanese, is the logical conclusion of pursuing the proposition to its extreme. Is Japan to be coerced to accept the fate of remaining in the dead level of mediocrity, or is she destined to play a leading rôle on equal terms with other leading nations in the free market of the world? This is what is worrying the Japanese very much to-day in contemplating upon the American proposition.

I do not believe that America in making the present proposition intended to force it upon Japan, nor do I fear that America will decide to do so. If Japan laid her case before the fair-minded Americans, straightforwardly, her position will be appreciated by them. With this trust in the fairness of the Americans, I venture to give voice to the thoughts of the Japanese on this subject, some already published, others not fully explained as yet.

In the first place, the criticism that Japan is selfish in refusing to surrender her special privileges in China when other interested powers of Europe and America are willing to do so is very weak, in that it disregards the question of relative vitality of interests of Japan in China as compared with those of other nations. England, France and other European nations, to say nothing about America, no doubt have their great interests in China. But compared with their more vital interests at home and other parts of the world than China, their Chinese interests are not so great as in the case of Japan. As I have intimated before, Japan's national safety depends upon her adhering to her interests in China. No such thing can be said of other foreign nations interested in China. Moreover, to-day, when European countries will be busy with their work of reconstruction after the war, they will not be able to invest their time, energy, as well as capital, as freely as Japan and America. Even if the European nations were allowed equal privileges with Japan and America, they will have to delegate their powers in fact, if not in name, to the two nations, to which the bulk of routine duties will fall. It will not be fair to the two nations to permit the absentees to be the beneficiaries of the work of development of China as those which will be present to do the actual work of development. Arguments have been advanced during the war and are likely to be advanced again, that it was not fair that Japan should have had her own way in the Orient when the European nations were busy with the war. These arguments were also very weak, because if they were to stay the hands of Japan to grasp the opportunity of development which was presented to her by the war, what can we say about the European nations, which, while we Orientals had been asleep for centuries, have come out to the Orient and appropriated profits to themselves of the results of their exploitation of the Oriental resources? Japan, because of her centuries of slumber until fifty years ago, has been lagging behind other nations of the world in the march toward Eldorado. But now she was awakened and is awake. Why should she not stir up her nerves and do her part in the game? In the meantime, the European nations, whose hands will be tied for some years to come from stretching out to the Orient, will have to rest content with the consolation that they had their day and that it is now Japan's turn—also America's—to play the game in the Orient.

In the second place, Japan's special privileges in China have history back of them, to put it in a nut-shell, without going into details of the history as done by many Japanese publicists to weary the western readers. But America has not had such history in China. She has hardly had any war to fight in China to defend her rights against encroachment of other nations, nor

has she been so close to China in point of historical associations, language, manners and customs, as well as in commercial efforts. America by sending her missionaries, educators and other benefactors have gained gratitude of the Chinese people. But her charity to China does not entitle her to special privileges in the way of business or politics. Thus it will be seen that Japan's interests in China are different in point of vitality to her from those of America. Yet it is proposed that Japan should forget all about the past efforts and club everything with America. The question whether such proposition is desirable or not will bring us back to the discussion of the idealism of Utopia again. As it will be unfair to Japan and America to let the absentee members of the proposed consortium in Europe be equal beneficiaries of actual work which will be done by the two nations in China so, also it will be unfair to Japan to permit America to be equal beneficiary of the ground work which has been done by Japan in the past.

In the third place, should the new International Consortium based upon the American proposition be formed, by far the heaviest burden of routine work will be laid upon the shoulder of Japan, because of her geographical propinquity to China—which means much—, whereas the benefits accruing to her from endeavors thus made through the new consortium will be shared in a communistic fashion. It will be a height of folly on the part of Japan to acquiesce in such arrangement, if she can help it. How will Japan's burden be the heaviest? Because when the new Consortium, as proposed, should, upon its formation, commence its work, it will have to have some sort of a guarantee that its interests are not jeopardized by any outbreaks in China which are liable to upset everything. To be brief, Japan's army and navy, as the police power of the Orient, will be the unique guarantee to defend such interests of the Consortium. Japan may not have to mobilize her army and navy at every turn of events in China, her powerful presence in the Orient, close to China, being sufficient as a preventive for any ills that China is heir to.

Why should the benefits of Japan's powerful presence in the Orient be equally divided among the members of the proposed International Consortium, unless Japan were prosperous enough already to be able to be so charitable? Japan will have to bear other burdens beside acting as a police power. Because of the similarity of language, thought, manner of life, etc., as well as the historical relationships, between the Japanese and the Chinese nations, Japan is in a position to know more of the details of the Chinese life, so that when the members of the new Consortium, particularly the Americans, become impatient with the dilly-dalliness of negotiations about any loan with the Chinese Government. Japan is likely to be called upon to serve as an intermediary between the Chinese and the Consortium. Also Japan will be called upon to give advices from time to time in the execution of the loan contracts. Is Japan expected to supply her knowledge of China, acquired through centuries of intercourse with China, free of charge? Yet that is what will come, if Japan should become a plain member of the Consortium. Japan may be willing to supply her knowledge of China free, but why should she be expected to be on the dead level of mediocrity as a beneficiary of the endeavors made on behalf of such International Consortium?

For these and other reasons Japan is opposed to the American proposition at heart, even on principle, unless the principle is based upon the ideal of Utopia. It is not correct to say that it was the militarists of Japan who opposed the idea of surrendering every economic prerogative which Japan has in Manchuria, Mongolia and elsewhere in the matter of loan making. The militarists may have taken a strong stand, which it is natural that they should take, in view of their occupation as fighters. But back of them are the business interests of Japan. I asked several prominent Japanese business men privately what they thought about the American proposition. One of the directors of a large mining concern was strongly opposed to the proposition on the ground that such proposition is only calculated to give the Americans the advantages in China which Japan possesses for no consideration to Japan. A resolution was passed during the summer by the leading business men of Japan, registering their disapproval of the idea. If the foreign minister, Viscount Uchida, the finance minister, Baron Takahashi, and other government officials expressed themselves in favor of the American proposition on principle, they did so as a matter of courtesy to the Americans. They had expected that the people of Japan will oppose such proposition.

To sum up, until a Utopia is in sight, Japan regards the American proposition as one calculated to limit Japan's privileges of national growth.

Regulations for Road Construction in China

The FAR EASTERN REVIEW for many years has carried on a campaign for the construction of highways in China, and with success. It has interested officials in the problem in various provinces of China and has placed the desirability of organized effort before Cabinet after Cabinet. The disturbed internal conditions and the failure to establish a stable government in Peking, plus financial stringency, have been the chief causes for delay on the part of the officials in inaugurating road-making measures. The present government has, however, done something. It has issued regulations for highway construction throughout the country. According to these regulations, promulgated on November 15, highways are to be classified under four heads—national, provincial, hsien (district), and village highways.

The National highways are to be those between the Capital (Peking) and the provinces, or Special Administrative Areas; between the capital cities of two different provinces, and between strategical points, harbors and other places of military importance. The width of a National highway is to be 50 feet (Chinese), or more.

Provincial highways embrace those between the capital city of the province and the different hsien cities under its jurisdiction; between different hsien cities; and between railway, mining, commercial and industrial centres, and places of military importance within a province. The width is to be at least 30 feet.

The hsien highways are to be those between the hsien cities and the rural districts under its jurisdiction; those connecting the different rural districts of a hsien; and those connecting a hsien city with river or sea ports, or railway, mining or industrial centres in the neighborhood. The width of hsien roads is to be 24 feet, or more.

Village highways are to be those between different villages, those connecting the villages with schools, factories and other public works in the neighborhood. The width of these roads is to be decided by the public bodies of the centres concerned.

National highways are to be designed by the Ministry of the Interior. Provincial highways are to be designed by the highest provincial officials concerned, who will, however, have to submit their plans to the Ministry of the Interior, which will also decide what sections are to be built, and the time in which they are to be completed. The Ministry of the Interior reserves to itself the right to create special organs for the construction of national highways under its direct control.

The hsien highways are to be planned by the District Magistrates who are to submit their proposals to the provincial authorities. The work of construction is to be carried out under the direction of the Magistrates, together with the local self-governing bodies of the districts.

The width of bridges over canals or creeks, is to be fixed according to the width of the type of highway. Detailed regulations governing the enforcement of the regulations of which the above is the gist are to be promulgated by the Ministry of the Interior.

We have had so much experience of the fate of regulations in China that we would be pessimistic did we not know that the increasing love of motor car riding on the part of officials is likely to promote road building on an extensive scale as soon as internal peace is secured. Therefore we welcome the promulgation of regulations as an earnest of what will be done in the near future.

China's New Acting Premier Wants to Open the Country to Trade, and Disband Troops

The new acting Prime Minister, General Chin Yun-peng, is credited with liberal ideas, and, according to a statement he recently made as to his policy, realizes the practical necessity for a real settlement of the internal strife before anything like stability can be secured for this country either internally or externally. General Chin, who only expects to hold office for a short time, until a suitable man can be found to take the substantive post, is decidedly of opinion that the Government's first business should be to secure peace with the South. The renewal of hostilities would, in General Chin's opinion, be a grave disaster, and he will do everything he can to avert it. General Chin definitely credited the President with genuinely pacific intentions and he associated himself most emphatically with the President's policy. General Chin believes that no small portion of China's troubles arises from the fact that political issues have been fought out in the wrong spirit, and that in making appointments to public office too much regard has been had to persons and too little to principles and qualifications. These defects General Chin hopes to begin to remedy.

General Chin's view of the conflict between North and South is that a good deal of the profession on both sides has been but a mask for other issues; but as the trouble is now diagnosed, the proper remedies can be applied, and General Chin believes that the solution will be found in a spiritual understanding between the two rather than in a mere adjustment of petty differences, the very existence of which is a sign that so far no attempt at a real understanding of each other's point of view has been attempted.

GENERAL CHIN YUN-PENG, MINISTER OF WAR AND ACTING PREMIER

On September 24 General Chin Yun-peng was appointed to take up the duties of Acting Premier, an appointment which is regarded as indicating the overthrow of the worst elements among the militarists.

General Chin stands for open diplomacy and the equality of nations. He believes that the reason for secrecy in connection with the loans from Japan during the past few years is that the transactions were not grounded on good reason. If and when an advance from foreign sources were required, there should be good reason for it, and under such circumstances secrecy was not necessary. General Chin not only believes in open diplomacy but in open markets, and he holds that there should be no discrimination made between one country and another in seeking financial accommodation.

Finally, and this is a point of the highest significance for foreign commercial and political intercourse with this country, General Chin holds that intercourse between nations should be based on equality, real and not apparent; and as he expressed himself to this effect in response to inquiries as to the degree to which extraterritoriality would be allowed to enter into the new treaties that it is in contemplation for China to make with certain foreign Powers, it may be inferred that the Chinese authorities intend to make a beginning of an end of extraterritoriality.

The outstanding problem in internal affairs awaiting a solution is the reorganization of the army, and this General Chin has determined to tackle boldly. Being a military man he knows what steps should be taken to effect a satisfactory disbandment of unsatisfactory soldiery, and being a patriot in addition to a military man—unhappily the terms are not always synonymous in China—he has made up his mind to act promptly and with the interests of the State primarily in view. Of the forces under the jurisdiction of the Central Government, numbering some 1,100,000, he proposes to make curtailments which will effect a saving of $20,000,000 in military expenditure, and already has cut down the army by disbanding forces which absorbed about $4,000,000. This is a distinctly encouraging sign and an earnest that if General Chin remains in his position long enough he will be able to give full effect to the policy which he has in mind, *i.e.*, to curtail present military expenditure by $20,000,000; to withdraw all troops from the front as soon as internal peace is effected; and then to begin a thorough reorganization of the army. Old, inferior troops will be disbanded, and new troops will be recruited and organized into an army based on modern ideas. The whole staff and the Ministry of War will, says General Chin, be reorganized at the same time. A bold move this, even if only to speak about, and one which all well-wishers of China will hope can be effected. The curse of China is the independent military leader—the General who has managed to secure sufficient men under arms to defy central control—and if General Chin can bring into being an organization which will restrict the

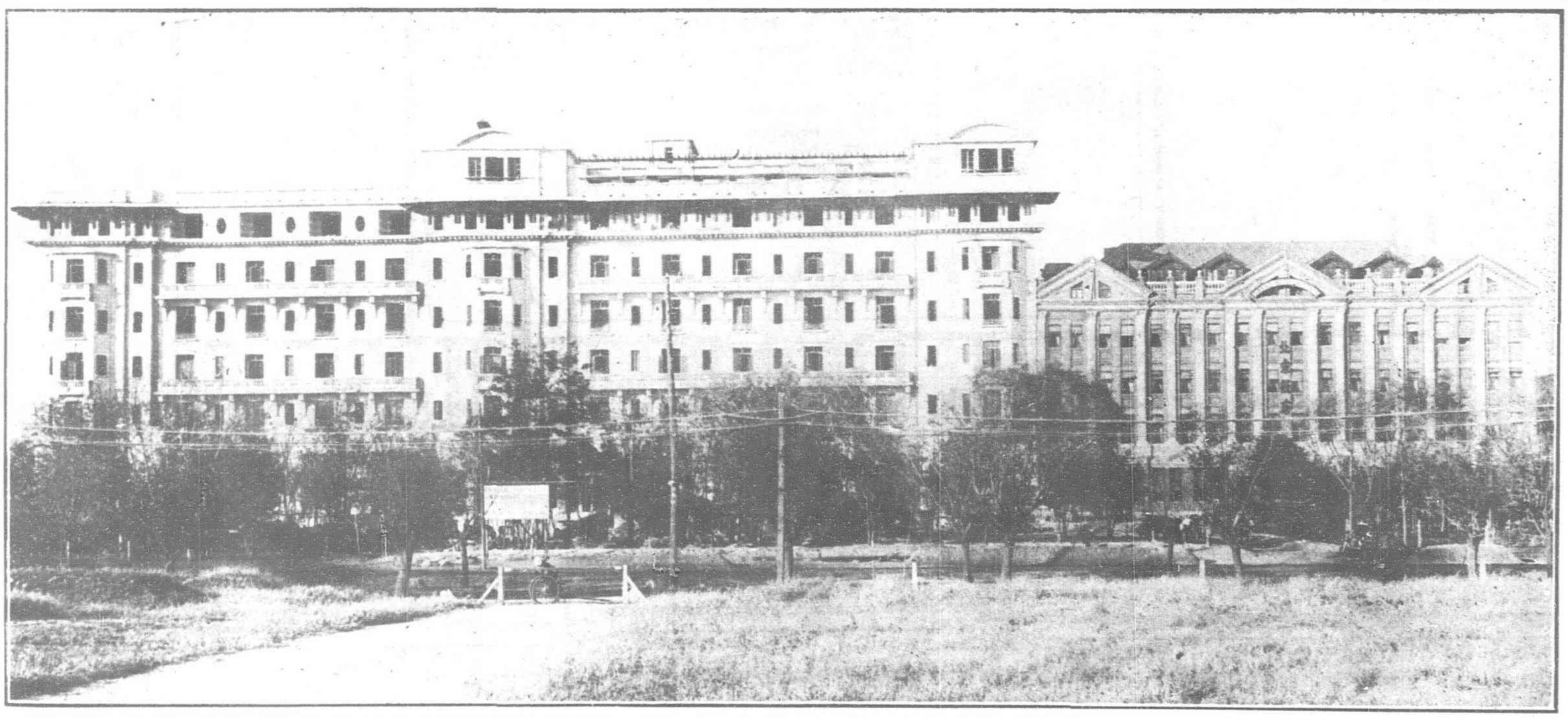
powers of the individual commanders he will be conferring a blessing upon his country which his countrymen will find it difficult adequately to thank him for.

The great drawback is, of course, lack of money. As matters stand at present the Government finds itself short by some $5,000,000 per month for administrative and disbandment purposes. By appealing to the provinces General Chin has managed to secure promises of contributions averaging a million dollars each from twenty provinces, which is a great achievement considering the character of the internal conditions and remembering that the provinces have for a considerable time escaped the duty of contributing to the Central Treasury.

If the Government could secure some $50,000,000 to carry on to the end of next year disbandment could be effected satisfactorily and affairs could be placed upon a sound footing, so that further loans would not be required. The maw of the army as it stands to-day is insatiable. With disbandment and reorganization of troops belonging to the Central Government as well as those maintained by the provinces the chief of China's troubles will disappear, and General Chin is hoping to be able to get the financial assistance very shortly to enable him to continue on a proper scale with his plans. He does not know whether to hope for assistance from the talked-of Consortium or not. When questioned as to his views on the subject he could but shrug his shoulders and ask what the policy of the Consortium would be. So far the Government has heard nothing on this point and until it does the Acting-Premier can express no opinion. All he can do is to hope for speedy settlement among the Powers interested so that China can come forward and negotiate a loan on a basis fair and just to herself and at the same time financially profitable to the lenders. At the moment she is handicapped. The Powers have seen fit to hold aloof for different reasons though they expect the internal situation to be adjusted with ease and disbandment carried out with efficiency on an empty treasury. Why the treasury is empty is not the question. The fact is it is empty, and the Powers with interests in China, who desire to see commerce and industry expand and develop should hasten their own arrangements connected with the formation of the Consortium so as speedily to assist in the amelioration of the conditions which now obtain in China. These observations are our own and not those of the Acting-Premier, who, however, feels handicapped in the carrying out of his program without substantial financial assistance.

In addition to financial difficulties the Acting-Premier has been confronted with considerable political intrigue on the part of the section which stands for out and out military control; who want to increase rather than reduce the forces, and who want to delay the appearance in China of adequate constitutional government. This party—the Anfu Club—obstructed the Acting-Premier from the outset in the formation of a Cabinet, one of their strongest objections being against Mr. Chow Tze-chi, proposed as Minister of Finance, on the ground that he is friendly with the British and American Legations! What this objection means need not be explained to anyone interested in what has happened in China in the recent past. That friendship for Great Britain and America should be regarded as a bar to Cabinet office in China is surely significant. But General Chin is not at all disturbed by the opposition, and says that as he has the interests of the nation at heart, as he has no party affiliations, and as he is picking for his Cabinet men who have had experience in administrative work he expects that the right-thinking people of China will see him through. "I am," he said, "selecting men according to the immediate needs of the country. There are men who want to come out who, in my opinion, the country does not need, but there are others who do not want to come out who, I feel, are needed by the country, and these men I want to persuade to enter the Cabinet and otherwise to help me. I am under no party influence and do not intend to be." The names of the Cabinet which have already been put forward were submitted to the President and approved, and General Chin says he is determined to push them through Parliament.

His policy, he says, is one which everyone should be able to support—and that is to bring about entire reconstruction throughout the country. He wants to establish the open door in trade; he wants to see organized industrial expansion; he wants to see means of communications developed and the greatest advantage taken of modern scientific advancement. General Chin feels that China has lagged behind too long, and he desires to do his utmost to give her a push into the sphere she ought to occupy. He realizes the difficulties in the way, knows that much education will have to be done, but he wants to start. If he can get help from his own people, and from those foreign nations who are desirous of extending their commercial interests in China he feels that he can succeed early. With opposition and obstruction naturally he can do nothing. But he is an optimistic Acting-Premier.



THE NEW GRAND HOTEL DE PEKIN AS IT AT PRESENT STANDS. THE OLD HOTEL TO THE RIGHT WILL EVENTUALLY BE DEMOLISHED AND THE NEW BUILDING WILL BE COMPLETED

Reinforced Concrete Hotel for Peking

The new Grand Hotel de Pekin, which is now in course of construction, and which is to be opened at the end of January according to present ideas, will be up-to-date in every respect. It is, architecturally, in Louis XVI style, modernized. The building is constructed of reinforced concrete and is claimed to be both fire and earthquake proof. An excavation of the whole site was made to a depth of six feet and over the whole bottom was laid a reinforced concrete mat some twelve inches thick, the walls and pillars erected thereon being based on another sixteen inches of concrete.

The main walls, pillars, and floors are of reinforced concrete, the floors being covered with oak flooring, while the partition walls are of hollow brick. The roof, also of reinforced concrete, is flat and provides a spacious roof garden on which are built rooms to serve as shelters from rain in summer, or as a winter garden, and a café.

The building is a pretentious looking one and occupies a site of six and a half *mow* on the Italian Glacis, opposite the Italian Legation. The southern facade will be 525 feet in length when completed and 90 feet in height. At present, as is shown by one of the illustrations, the building of the eastern end has been deferred owing to the existence on the site of the present Grand Hotel de Pekin. Later on the old building will be demolished and the new one extended as planned when a total of 250 rooms will be available. The section under construction is the larger one and contains all the principal accommodation.

In the basement are situated the kitchen, cellars, store-rooms, and central heating plant, the latter consisting of seven boilers. Above the basement are six floors. The main entrance to the ground floor is protected from the elements by a concrete porch some 55 feet long and 18 feet wide, providing ample space for the free movement of vehicles. The ground floor is surrounded by a spacious verandah to be open in summer and closed in winter, the verandah having free access to the main rooms.

The foyer is lofty, and well designed, and is carried out in white marble from the Western Hills, near Peking, the main staircase being also of marble. The imposing appearance of this spacious hall is enhanced by the quartered oak panelling, to a height of eight feet, of the walls and pillars, and the graceful vaulting of the ceiling. Artificial stone is used on the walls and pillars above the panelling.

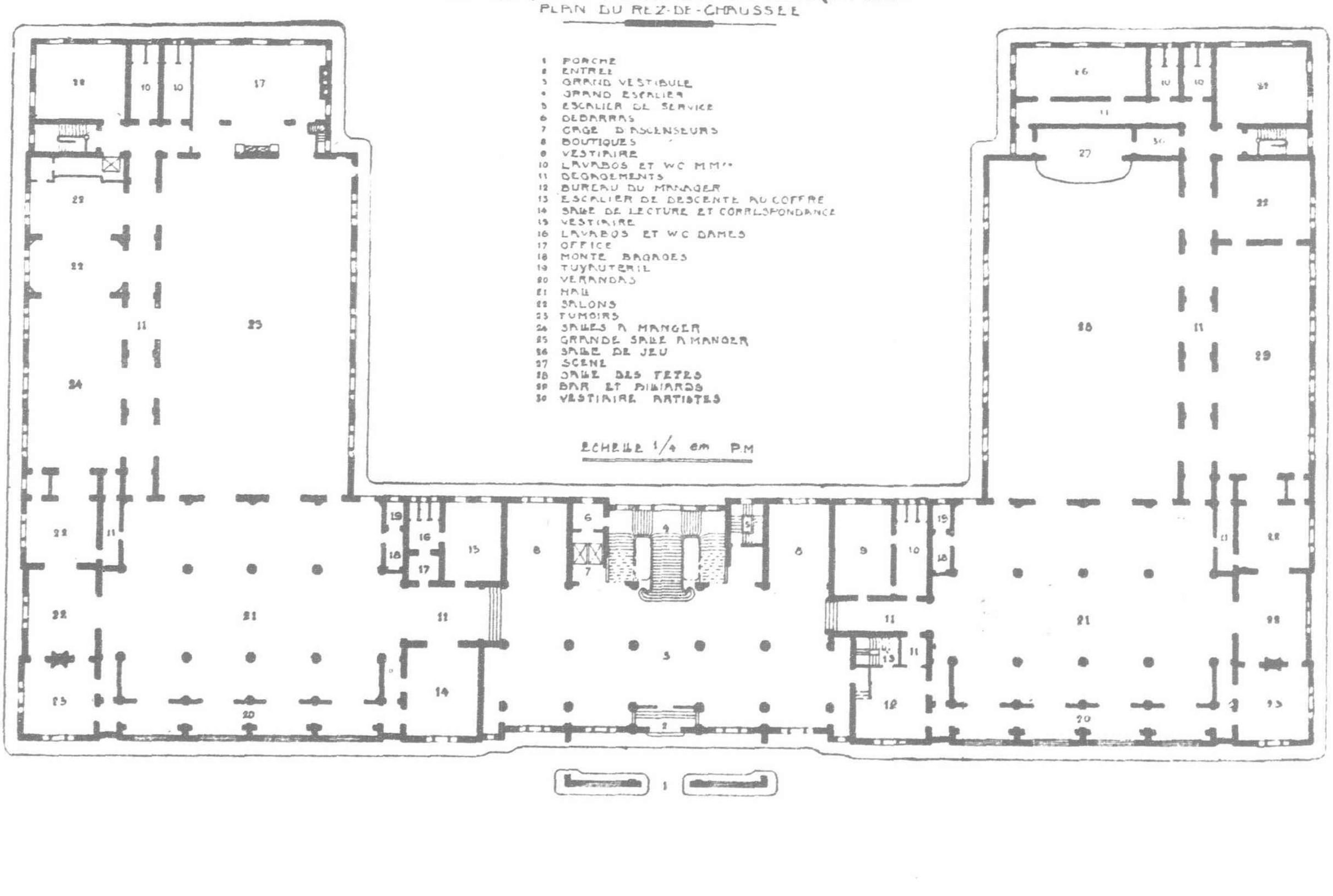
To the left of the foyer is a well lighted and handsome afternoon tea and dance hall, with parquet flooring, oak panelling, and a lofty vaulted ceiling carried on pillars. It opens on to the verandah and is connected by wide glass doors with the dining room and banquetting hall. The two latter are also oak floored and pannelled, the dining room being 90 feet in length and 60 feet in width, covered by a handsome glass roof, and capable of accommodating 400 diners. A balcony for the orchestra is situated at the northern end of the dining room.

In addition to the main dining room, the tea and dance room, and a large banquet hall, there are four private dining rooms, one smoking room, one reading room, one ladies' drawing room, and one music drawing room, also on the ground floor. All rooms open into each other by large glass doors.

The hotel offices and Cooks' Tourist Bureau will be situated off the foyer.

The five floors above are devoted to bedrooms, and are reached by a grand staircase and by two lifts for visitors, one baggage lift, and five dumb waiters. There are twenty spacious rooms on each floor, each equipped with its own modernly furnished bathroom, and with private telephone, and all either overlooking the Legation Quarter or the Forbidden City. One of the great features of the building is that all the bedrooms are on either side of a wide corridor running straight through the whole length of the hotel and all rooms have exterior views. Twenty rooms are provided with a private verandah, and the second and fourth are crowned by a large balcony. On each floor is a suite of two bedrooms and one drawing room, with special antechamber and box room. The whole of the hotel will be artistically furnished.

From the roof garden visitors will be able to obtain the most entrancing views of Peking city. On the west the pavilions of the Forbidden City and Winter Palace with their majestic yellow tiled roofs and striking colors in the near distance, with the Western Hills in the background, and all about—in the summer



time—as far as the eye can reach, the varied foliage of trees, constitute a view which no one will forget and all will linger over. To the south the Temple of Heaven rises boldly from the tree tops, and on the north Coal Hill, the Bell and the Drum Towers likewise stand out in delightful color, while in the distance on all sides can be seen the attractive towers of the gates of the Tartar Wall. It is not difficult to say which will be the most appreciated rendezvous in Peking when the hotel opens.

Messrs. Brossard, Mopin and Cie are the contractors, their architect being Mr. Wielmacker.

China's Through Traffic Arrangements

In the September, 1919 issue of the FAR EASTERN REVIEW an article was published giving the history and work of the conferences which have had in hand the arrangements for passenger and freight through-traffic on the Chinese railways. A further conference has just been held in Peking, having been called by the Railway Through Traffic Administration of the Ministry of Communications, Peking, of which Mr. Y. C. Whang, Chief of the Railway Department, is the efficient Director. This conference, which makes the seventh of the series, discussed questions mainly relating to passenger and goods traffic, and agreed to:

The extension of stop-over privileges to holders of through tickets on China's railways;

The selling of tickets at reduced prices to parties of six persons or over belonging to a theatrical, circus, or concert party, or to clubs travelling to play matches, such reduction to be 20 per cent. off single fares and 40 per cent. off return fares;

A reduction to students returning home on vacation of 25 per cent. on single fares and 50 per cent. on return fares;

The establishment in big cities of enquiry offices for the sale of tickets, etc.;

The booking of passengers and baggage one day in advance of date of travelling. After passengers have complied with Customs regulations baggage may now be forwarded one day ahead of their departure;

The provision of through rates for private and passenger cars to parties not less than 20 first-class, 35 second-class, and 50 third-class;

An increase in weight of through parcels to 100 catties and 10 cubic feet, or 300 cubic decimetres respectively;

Free storage of parcels for seven days, a charge of ten cents per day to be levied in case of non-delivery; after six months parcels undelivered to be disposed of according to the instructions of senders or at the discretion of the railway officials concerned;

Interchange of rolling stock according to the draft regulations compiled by the Railway Clearing House. A flat rate of 10 cents per ton hire charge shall be made on tonnage balances, lines detaining cars loaned beyond a period of 12 days to be penalised to the extent of 40 cents per ton carrying capacity, but no charge on hire or demurrage shall be made in case of floods or other unavoidable causes. No charge is to be made on cars travelling on other lines than their own for the purpose of loading coal or materials for the use of their own line. Provision is also made for the repair of damage and loss of fittings, etc., and for hire charges for passenger cars;

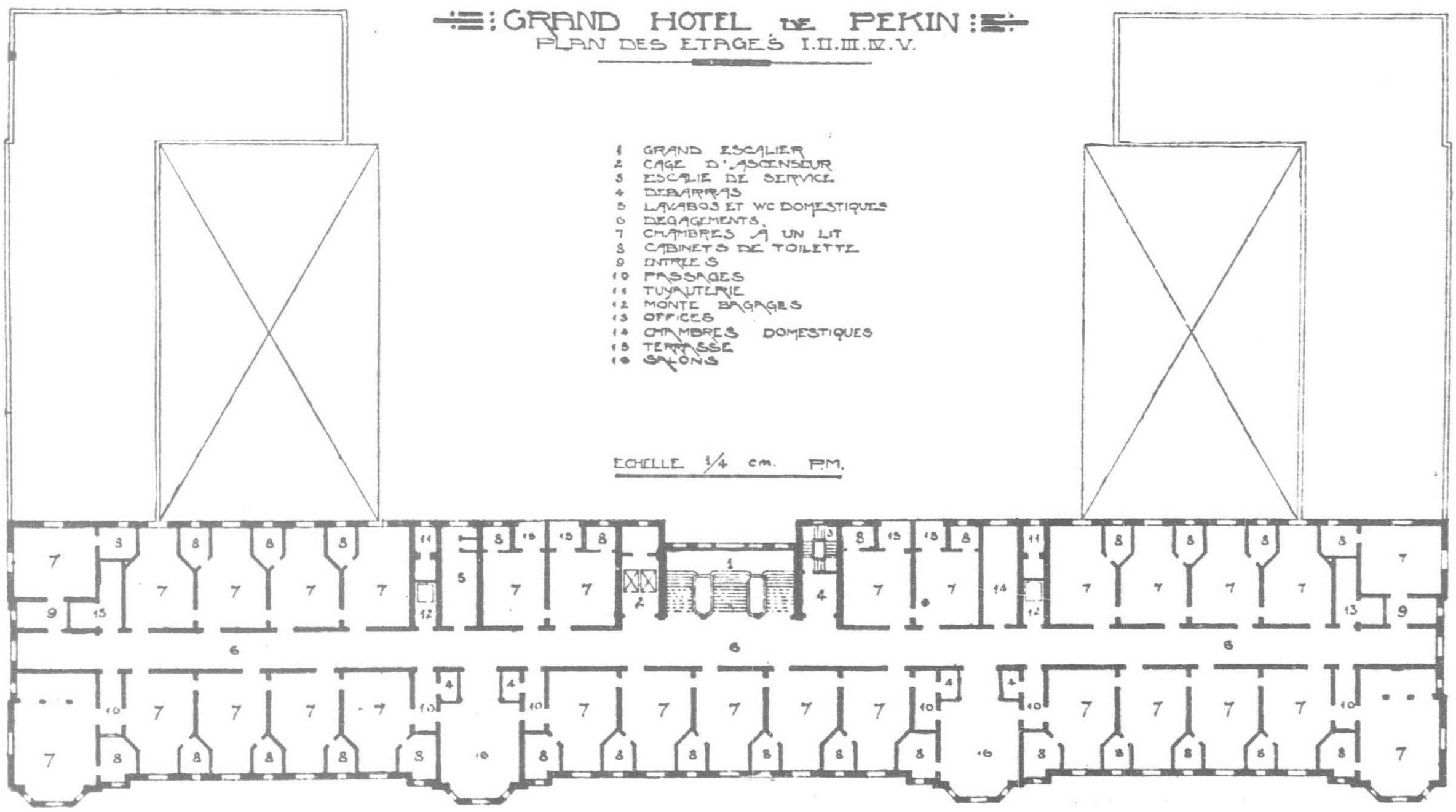
The classification of goods, and the charging of picul, ton, and car load rates for general goods, the tapering system to be applied in fixing rates;

The standardization of traffic forms;

The adoption of the metric system, preparations in connection with which are to be made by the Railway Through Traffic Administration, which will prepare an elaborate scale of comparative weights and measures; and

The unification of telegraph codes.

We have given the results of the last conference in the briefest form but those who understand the character of the various lines making up China's railway system as it is at present will appreciate the importance of the work done. A few years ago each line ran its own business in its own way, and each way was different. There were British, French, German, and other systems and languages in vogue, and no co-operation between the various lines. With recent years remarkable strides have been made towards a proper definite co-ordination of work, and it can be said with certainty now that the Through Traffic Administration and the Unification of Accounts Department have the whole of the lines under control, and that being the case the services rendered by the railways to the public are bound to be increasingly better and the results of far-reaching importance to the country. Mr. Y. C. Whang, Director of the Through Traffic Administration and the representatives of the various lines constituting the conference are to be congratulated on the results attained.



The Chumbi Valley of Tibet

A description of the Chumbi Valley of Tibet as it now is, and showing the changes which have taken place since the Mission-Expedition under Sir Francis Younghusband and General S. R. Macdonald in 1903-4, "mainly due to the entire disappearance of Chinese influence," is given by Lieut.-Colonel Sir Walter Buchanan, K.C.I.E., I.M.S., Calcutta, in a recent issue of "The Geographical Journal," London.

The journey has not been done (except by the few Sikkim officials on duty and by a Calcutta artist) since the close of the Mission Expedition referred to. Lieutenant-Colonel Buchanan arranged to go into Tibet by the Natu Pass (14,400 feet), to go up the Chumbi Valley to Phari and come out by the well-known trade route over the Jelep La. Pack pony and mule transport was found to be much more satisfactory than coolies. After briefly describing the difficulties of the trail to the top of the Natu Pass, Lieutenant-Colonel Buchanan continues:

Below us lay the Chumbi Valley and the River Amochu; to the southeast the huge snow-covered ridge which divided us from the neighboring pass, the Jelep.

From Champithang to the Chumbi Valley the road runs downhill, at first in easy gradients. About a mile below the rest-house we had a grand view of the pyramidal peak of Chumalhari, and on looking back a fine view of the Natu Pass from the Tibet side. Further down we see in a deep valley on the right, the ruins of the houses and barracks which once were old Yatung. Old Yatung was the place where Sir Francis Younghusband's Mission, after crossing the Jelep, met with a feeble show of resistance. It is a very narrow part of a valley, quite unsuitable for a camp or place of residence. The old Chinese barracks still remain, roofless and ruined. The name Yatung is now given to "New Chumbi," the residence of the British Trade Agent situated 6 or 7 miles up the Chumbi Valley, in a fine open space to be described below. "Old Chumbi" is the name of a small village in the valley, on the Amochu and close by the present Yatung.

About 3 miles out we pass over a bad landslip, and a mile further on we reach a point with a magnificent view of the Chumbi Valley and of the bright green sparkling waters of the Amochu River, as it makes for the pass into Bhutan, which it traverses to become, in the Duars, the Torsa River, and join the Bramaputra in the plains of Bengal. This is the destined line of the locomotive should time ever lead to the necessity of another expedition into Tibet. Looking back from here we can see the two great passes, the Natu (over which we have come) and the Jelep by which we were to return, both snow covered (October 21). A few minutes later we catch sight of three Chortens on a ridge above the important monastery of Kajui (or Karjui). We are now well out of the forest, and leaving pines and junipers we descend over bare grassy hills to the Kajui Monastery, where we were hospitably entertained by the Lamas to the inevitable salted tea, and shown over the buildings. The Buddha statues were very good, as also were the pictures on the temple walls.

Very soon after leaving Phema (or Chema) and crossing a bridge we came to the remains of what was till recently a flourishing Chinese town called Pibitang. It is practically deserted and in ruins; all trace of China is gone, except for some Chinese characters still clinging to the walls and a few colored drawings of fearful Chinese warriors in mail armor, with moustaches as fierce as their daggers!

Leaving this bit of old China, we rode along a level but rough stony road and passed through "Old Chumbi," a few houses, among which are the remains of what was once the palace of the Rajas of Sikkim. On passing old Chumbi the valley opens out, the road still keeping close to the Amochu River. We pass a tiny village known as Eusakha, and in a few minutes are in New Yatung, the headquarters of the British Trade Agent.

Most of modern Yatung, lies on the east bank of the Amochu, which runs clear and glittering through the town. The valley here is wide, and there is ample room for the small bazaar, the offices and residence of the Trade Agent, and for a row of barracks for his guard and escort. Supplies are available from a Commissariat overseer, who keeps them for the use of the few officials going on to Phari, and to our small garrison at Gyantse, where another British Trade Agent resides.

The altitude of (new) Yatung is 9,780 feet above the sea-level. The minimum temperature in the end of October was only 42 Fahr., but it falls to 20 Fahr. in the winter. In the summer the climate is superior to anything in the Darjeeling Hills or in Sikkim. European vegetables of all kinds can be grown and many kinds of fruit (especially apples). There is a British Post and Telegraph Office, a dispensary, and even a long-distance telephone to Gyantse. Half-a-mile beyond Yatung the valley divides; one branch, the Kambo Valley, leads up to some hot springs, which are locally celebrated for their virtues, even by the never-washing Tibetans.

We keep up the main valley (to the right) following the Amochu River, past a small bridge leading to a little Gumpa or temple across the river. Soon the valley narrows; on the left are high precipitous rocks, 1,000 feet above us, on top of which is another Gumpa, not unsuitably named Gab-Dzong (or the Vulture's Fort), and round the corner a place famous in the Expedition days, called Chortenkarpo (the white Chorten). The road and river wind through a narrow gap, "where half a hundred might well be stopped by three," and indeed a half-hearted attempt was made to stop Sir Francis Younghusband's party at this place. A wall with a gate used to run down to the river on both sides; now both are gone, only a few bits of the walls remain, with the remains of the Chinese barracks, on the right, where once a Chinese garrison guarded the pass. All is now in ruins; the stone houses stand; the woodwork has been removed, but on the walls of the chief house are still to be seen pictures of painted emperors and fierce armor-clad warriors.

Close by the big prosperous village of Galingka we passed a long string of mules and pack-ponies coming down with wool from Lhassa, and stopped to have a talk with a traveller (a well-known man and a "Khan Sahib") who was journeying from Lhassa back to Ladak, and found it easier to return viâ Chumbi, Darjeeling, India, and Kashmir than to face the long trek across Tibet to his home in far-off Ladak. Galingka is well situated and is a typical Tibetan village. Many of the houses are substantial, stone walled, and roofed with shingle, held in place by huge stones. The long flat Lingma plain (Lingmathang), described by all writers on the Expedition of 1903-4, was covered with thick long grass, and as we went up was absolutely deserted; on our return a few days later the whole was covered with black yak-hair tents (we counted 150), and hundreds of people were cutting the grass and carrying it away on mules and ponies; a busy harvest scene, which we did not expect in this austere land. At this point upper "Tromo" or upper Chumbi begins; Lammergayers (*Gypaetus barbatus*) flying aloft, like small aeroplanes, to use a very modern simile.

At the north end of this flat plain the valley is blocked by a huge rock, the "Ta Karpo" of the Expedition, a bare conical mass. The Amochu, recently so swift and smooth in the plain, becomes again a fierce torrent. We cross a bridge to the other bank (right) and go up a long rocky defile or canyon to the rest-house at Gautsa, "the plain of gladness," an open short valley where the river divides to flow round some jungle-covered small stony islands, some of which were even cultivated by the few

inhabitants of this small village. Gautsa is an important halting-place for the wool-laden pack-mules, and on this day's march we happened to count the animals carrying wool down to the railway and mart near Kalimpong. They numbered as many as 360.

The road for Phari ascends at once after leaving the village and reaches another deep black canyon. It is so rough that only a mule or a "Bhutia" pony could be ridden over it or carry a load. After some 3 miles we leave the canyon, the valley widens, the road runs on the right bank high above the river which roars in a deep gully below. We rapidly descend to a small flat plain (13,300 feet), called Dotag, an earlier formation on a smaller scale like the Lingma plain below. Across the plain is the "Frozen Waterfall" of the Expedition. It was not frozen when we passed it (October 25 and 29), but the bare hills all round were snow-covered. In the winter days of the Expedition this otherwise admirably flat camping-ground was known as the "coldest spot in Asia"!

Riding for some 3 miles through a widening valley we are at Kamparab and on the edge of the great plains of Tibet.

We have left Himalayan scenery behind, and the Chumbi valley. We soon caught sight of Phari with its *dzong* or fort, and were at first puzzled by the long rows of black lines around the walls of the fort. These on nearer view were found to be the black walls of the turf-sod houses which comprise the town of Phari, the highest (altitude 14,570 feet), the most dirty and the quaintest town in the world, higher by some hundred feet even than the villages in the higher Andes.

We arrived at an auspicious moment in the middle of a "harvest home." All round the *dzong* and the town were loose heaps of earless barley-straw: dozens of men, women and children were busy packing up huge bales of straw and carrying them to be stacked on the flat roofs of their turf-walled houses, these being the only places where the valuable fodder could be stored safe from the numerous mules, ponies and yaks which were grazing round the town. This earless barley is useless as a human food, but it is much needed as fodder for the mules and ponies which carry the wool from Lhassa to the Indian market. The people obtain their grain for food mainly from Bhutan over the neighboring pass, the Tremo La. It was over this Bhutan Pass (Tremo La) that Warren Hastings' agents, Bogle and Turner, as well as the eccentric Manning, entered Tibet.

The Phari fort is a strong stone square building on a slight elevation above the town, which surrounds it more or less, and especially on the south. Manning, who arrived at Phari in the same week in October, 1811, as we did in 1917, described it in his disjointed diary in four words, "dirt, dirt, grease, and smoke," and it cannot be said that the passage of one hundred and six years has rendered this terse description any the less applicable. The fort is said to be of Chinese origin; it has been repaired since the Expedition of 1904, and the inside has been (to judge by the decriptions of 1904) considerably altered. The town is very quaint; the dirt of ages lies around, and snow persisted since the previous winter in many corners. The floors of the black sod-huts are generally below the level of the ground, and are entered by a couple of steps from the road. This may be due to their being warmer by being so made, though most travellers have attributed it to the raising of the road outside by the accumulated filth of ages. There are generally no windows, the door and the smoke-exit in the roof sufficing for ventilation, but two or three of the more important houses had a window covered with China paper. In spite of all these sanitary defects (as we would call them) the people generally are healthy and sturdy. Goitre is very rare, and this in marked contrast (we were told) to its prevalence in the neighboring Bhutan valley of Paro. Sore eyes were very common among the bright and intelligent children, but adults seem to have outgrown that trouble, which is, of course, produced by dirt and the irritating smoke of the yak-dung fires.

The views from Phari are splendid. The plain is surrounded by distant low hills, mostly snow-topped. The grand mountain of Chumalhari (23,960-ft.) on the northeast towers 9,000 feet above the fort and town, like the Matterhorn above Zermatt, and is quite close (some 6 miles off). As we stand with our backs to Chumalhari, there lie before us the northern aspects of the great Dongkya Peak (as Hooker always calls the great hill known on the maps as Pawhunri) and part of Chomiomo. To the south through a gap in some lower hills we saw the snow-covered Bhutan Mountains (Masongchongdrong). Due north across the plain we see the small monastery, Chatsa, and beyond it the open smooth pass called the Tang La, 15,200 feet, on the way to Gyantse and Lhassa, near which was the first unexpected fight with the Tibetans in 1904. To this spot some of our party rode during our stay at Phari; it is about 9 miles off, and on reaching it the syces raised the well-known cry "Ki ki so so Cha Gyal lo" as they topped the pass. From here in the distance could be seen herds of the *kyang* or untamed wild ass of Tibet (*Equus hemionus*). One of these *kyangs* captured while young was purchased for £25 by one of our party, who is President of the Calcutta Zoo. The animal was safely brought to Calcutta, and after one year there through a Calcutta hot weather, is fat and flourishing, though its habitat is 14,000 feet and over. Having spent three days in this fascinating place we had to return, and in two days reached (new) Yatung again.

The road from old Yatung up to the Jelep rises 5,000 feet, and is extremely bad. It is extraordinary that so bad a road can be used as the main trade route from Tibet to India. No wonder we were told of the short lives of the mules that have to carry heavy loads up it. We can only attribute this to the "forbidden land" policy, which still governs our dealings with Tibet, with Bhutan, and with Nepal. About halfway to the pass is a Tibetan rest-house, where we halted till our laden mules and servants got up. Just as we reached the cairn which marks the top of the pass and re-entered Sikkim we were met with a cold deluge of snow and sleet, which turned soon to rain and thoroughly drenched us before we reached the new but small, uncomfortable, two-roomed bungalow, 2½ miles from the Jelep, at Kapup (altitude 13,000 feet). All Sikkim bungalows have beds and accommodation for four travellers. It is strange that this new bungalow should have only two small rooms and two beds, a very weak link in a chain of excellent rest-houses.

The Liao River Conservancy

The situation regarding the Liao River Conservancy caused by the death of Mr. Hughes a year ago has now taken definite shape, says a correspondent of the "North-China Daily News." Since Mr. Hughes died there has been nothing to report because the Conservancy question became a political one, in the hands of the highest in Peking. The Japanese wanted Japanese engineers for both the Upper and Lower Rivers. Hughes had held this position, but he was prevented from doing anything to improve the Upper River owing not only to lack of funds but to local opposition. The outcome of the negotiations was that the engineer for the Upper River should be Japanese and that a British engineer should complete the Lower River work.

There were no funds for the Upper River and those allotted to the Lower River, obtained from a loan, jointly given by the Hongkong & Shanghai and Russo-Asiatic Banks, were nearly exhausted. The Board, therefore, requested that appropriations from Customs Revenue be authorised—Hk. Tls. 1,350,000 for the Upper and Hk. Tls. 400,000 for the Lower River (these sums approximate $2,000,000 and $600,000 respectively). The Diplomatic Body and the Chinese Government have now approved of these appropriations being granted.

The following engineers have been appointed: For the Lower River, Mr. P. F. Fawcett, A.M.I.C.E.; for the Upper River, Mr. Tsurikichi Arai. The former had considerable experience with the Humber Conservancy and later was for some years on the Haiho Conservancy from which he resigned to go to the front where he served with the R.E. The latter was the principal Engineer to the Home Office in Japan and is said to be most experienced Japanese river engineer.

The salary of each engineer is to be 1,000 silver yen a month. As regards the money mentioned above as having been apportioned for the Conservancy, these figures are, of course, not estimates of the cost of the works, which can only be formulated by the engineers. The advances are secured on the surtax collections of the Upper and Lower River. A surveyor for the Lower River is also considered desirable and the Conservancy Board has given instructions for one to be obtained.

Another View of the Shantung Issue

By GEORGE BRONSON REA

In May, 1915, when confronted with the situation arising out of Japan's Demands upon China, the President of the United States took the stand that these issues were not the sole concern of the United States, that all the Treaty Powers were equally and vitally interested, and, therefore, he had decided to postpone consideration of all Far Eastern matters until the termination of the European war, and then, either at the Peace Conference, or a general international convention to be called for that particular purpose, to have the status of China and the rights of all nations to equal opportunity in its development determined definitely for once and all time. This policy was in complete harmony with that of the Chinese Government who had specifically requested that such an attitude be adopted by the United States as a guarantee that her problems would receive equitable consideration as soon as the Powers had time to devote to their solution. The position of the American Government was communicated to the Chinese Minister at Washington for the information of his Government.

There was no good reason why the United States should assume the sole burden of regulating the affairs of Asia and dictating to Japan what she should or should not do in China when her vital interests were menaced. Interference with Japan at that particular time would only have complicated the general international situation in favor of Germany, by pitting the United States against Japan in the Far East. Even had the American Government desired to enter an emphatic protest against Japan's activities, the woeful state of national unpreparedness would have deprived such action of its force and invited humiliation. Therefore, from all viewpoints the policy of the Administration formulated at this time of great world stress, was not only cautious and statesmanlike, but calculated to advance the highest interests of the nation.

Yet within a month, the American Minister to Peking, while in the United States on an extended vacation, was busily engaged in organizing a new financial and engineering combination to seek for new concessions in China, and a few months later threw down the challenge to Japan in the matter of the Shantung Canal contract, while in May, 1916, the issue of the Open Door was raised with the Four Allies at the same time, while they were fighting for their existence with the Central Powers.

In answer to the nation-wide criticism that followed the publication of the terms of the Russo-Japanese Alliance in July, 1916, and the further Demands of Japan upon China arising out of the Chenchiatun incident, the State Department on September 17, again placed itself on record that under no circumstances would it face any Far Eastern issues until the termination of the war, yet two weeks later notwithstanding this clearest pronouncement, the Americans definitely created further and more formidable issues by entering into the Siems-Carey railway contract. One month later, in October, 1916, when confronted with the Russian, Japanese and British protests against the Canal and Railway Contracts, the State Department reiterated its determination to side-step these issues until after the war. Here we have a definite, set policy, that the nation had every reason to believe would be carried out at the proper time.

When this time arrived in Paris, we find that these promises were forgotten. The Shantung question was taken out of the general problem and the fire of the American and Chinese Delegations concentrated upon Japan. They placed their one-sided case before a Tribunal of Three, in which two of the judges, Great Britain and France, had not only created the precedents which Japan tardily followed to protect herself, but were compromised to support her claims. The result was a foregone conclusion. The American "experts" attached to the Peace Delegation, by failing to adhere to the President's policy, went down to defeat and carried the Chinese with them.

Had the Americans lived up to the oft-repeated promises of the Administration, the other Powers would have been notified, that, as the Shantung question was only a minor and insignificant part of a general problem, the rights of Germany should be surrendered to the Allies in the Peace Treaty, leaving Japan as Trustee, until such time as the whole problem could be taken up at a general international convention, in which China could present her full case. China would have been satisfied, Japan and the other Powers would undoubtedly have accepted this reasonable request, and the American Delegation would have lived up to the traditional policy of the nation, carried out the promises of the Administration, and avoided the undignified squabble in the Senate. The real Shantung issue before the American people, is, why the question was permitted to be raised in Paris, and the nation pitted against Japan and the other Allies? Who was responsible for overturning a policy formulated to advance and protect the highest interests of the nation? It is inconceivable that the President reversed himself. These matters were left in the hands of the subordinate members of the Delegation.

After leading the President into an untenable position from which there was no escape, these administration "experts" immediately threw him over, and hastened home to have the Treaty broken in the Senate. Their first allegiance was not to the Government who retained their services, but to China. All ran to cover and, to save their reputations with their Chinese friends, threw the blame on the President and Colonel House. One of these experts retained by the Chinese, then testified before the Senate Committee on Foreign Relations, that, when the other Far Eastern "experts" in Paris learned of the Kiaochou decision, their unanimous opinion was that "this means war." In an article published in "Asia" the official organ of the American Asiatic Association, Mr. T. F. Millard the "war expert," places the above words in the mouth of Mr. E. T. Williams, the Chief Far Eastern adviser attached to the American Delegation, thus making them official.

Now we learn that the retiring American Minister has been engaged by the Chinese Government to represent them in Washington as special counsel, at a salary of $20,000 per year, thus giving effect to the stories published in the Chinese press in 1916, at the time of the Presidential elections. It was then announced that in the event of a Republican victory, Minister Reinsch would resign to accept the position of General Adviser to the Chinese Government. And, while breaking confidences seem to be part of the campaign conducted by

the Chinese "experts" it is interesting to know that the private secretary of President Li Yuan-hung, is responsible for the statement that Minister Reinsch wrote a personal letter to President Li at that time, soliciting the position of General Adviser to China. In attempting to fix the responsibility for the rejection of President Wilson's program, it would appear that the policy of the American Government was directed or moulded from Peking. This will explain the fiasco at Paris, and the subsequent scramble of the "experts" to shirk their responsibility by shouldering the burden on to the shoulders of the President and Colonel House.

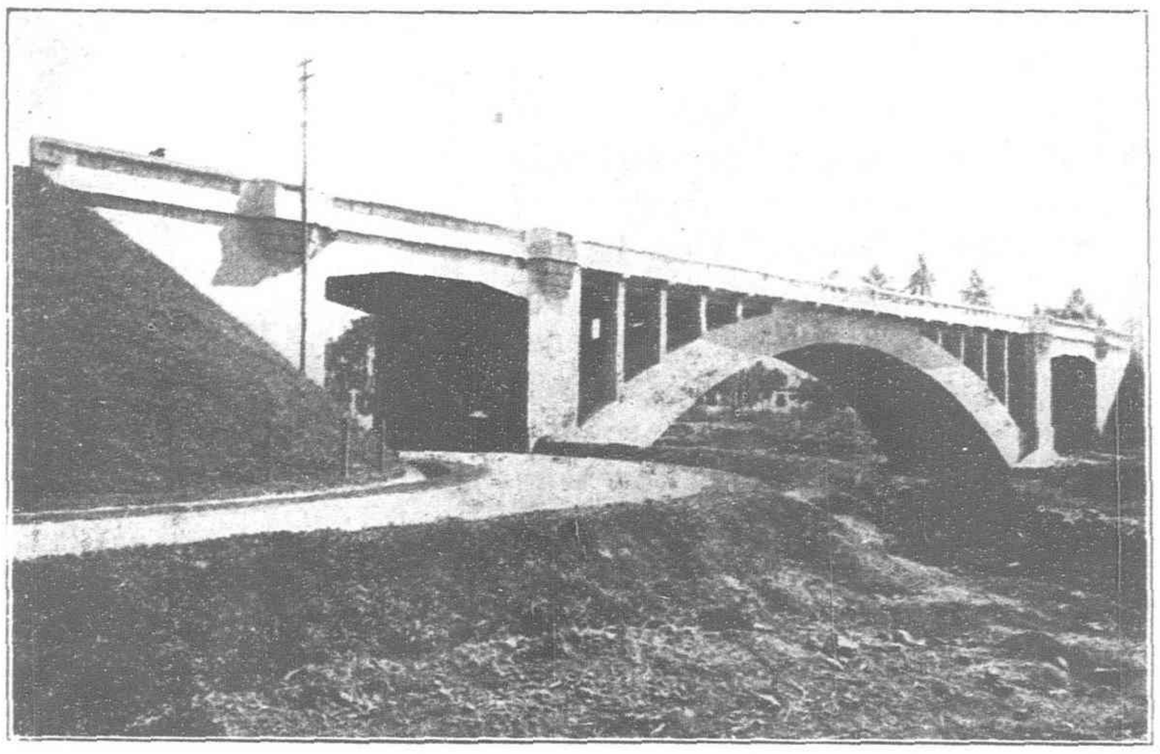
There seems to be a set determination on the part of these "experts" to widen the breach between the United States and Japan over the Shantung question. The real problem of China lies in her railway concessions. Not one of the experts who have taken such an active part in this campaign are qualified to discuss these matters, let alone guide the policy of the nation. Before the United States becomes inextricably enmeshed in the web of Chinese intrigue that would pit the nation against Japan, commonsense would dictate that the wisest course would be to return to the cautious, sound, policy of President Wilson, by reserving our approval of the Shantung clause in the Treaty, until such time as the whole problem of China can be taken up at an international conference. There is no good or sane reason why the United States should set itself up as the sole judge of Japan's actions, which tendency is part of a general campaign directed from Peking or Canton. Let us return to safe and solid ground by demanding that the Administration live up to the promises so freely made to the nation in times of great stress arising out of these Chinese squabbles.

The FAR EASTERN REVIEW has championed China's cause for many years, and has supplied much of the information and arguments that are now being employed by others. There is, however, another side to the story. There is a limit to propaganda. When this openly incites to war between the United States and another country, it is time to call a halt, especially when the campaign is waged by those responsible for the miserable fiasco in Paris, the result of their own ignoring of vital and fundamental facts. If China wishes to obtain the lasting sympathy of the American people, she cannot succeed by indulging in her time old trick of playing one nation off against the other, in the hope that through the defeat of her neighbor, her own position will be strengthened.

The American people will never go to war for the sake of China. American blood will never be shed to protect four hundred million pacifists, until they show some indication that they are willing to fight for themselves. The campaign that is now being carried on in the United States by the friends of China, can only result to the detriment of her best interests. There is only one reasonable solution to this muddle. China should concentrate her efforts towards having her whole case taken up before a conference of the Powers. There she will learn just where she stands in the comity of nations. If the decision goes against her, she will know there is only one road for her to follow. She will have to work out her own salvation, in the same manner that other peoples, other nations, have risen to the great occasion when their life was at stake. China's regeneration must come from within. A war between the United States and Japan over China would solve nothing, for in the event of the former being victorious, and China set up again as an independent nation, she would slip back under the domination of Russia. War over China is unthinkable. It will not come, and the Chinese will be well advised to put an immediate stop to this trend of propaganda in the United States.

Java Engineering Congress

Preparations are now practically complete for the General Engineering Congress to be held at Batavia, Java, from May 8 to 15 (inclusive) 1920. The Congress will be held under the patronage of the Governor-General of Netherlands East-India (His Excellency J. P. Earl van Limburg Stirum, LL.D.). It is probable that between four and five hundred persons interested in engineering will attend the Conference from various parts of the Far East and India. It was originally decided to hold the Congress in September, 1919, but various circumstances arose to require a postponement. A set of strong committees was formed some time ago to make arrangements for the Congress, and they have been very active. The range of subjects to be discussed is a wide one, covering the general field of engineering, including, harbors, railways, telegraphy and telephony, irrigation, water supply and sanitary service, roads and bridges, civil and military buildings, city planning, industry and production of energy, mining industry and geology, artesian wells, technical education, cartography, general regulations for testing building materials, technical uniformity (in railways, standard gauge, etc.), factory acts, refrigerating industry, aviation, method of carrying out public works, etc.



RAILWAY-VIADUCT OF RE-INFORCED CONCRETE, JAVA

The Congress is to be managed by the Executive Committee of the General Engineering Congress Association, the Chairman to be the President of the Executive Committee. Subscription for Congress tickets is open to Associations, Companies and private individuals. The subscription fee for the whole Congress is fifteen guilders. At the conclusion of the Congress a trip through Java will be made for the purpose of visiting some important engineering works and industries, also some of the better known, and for engineers, more interesting parts of the island. Mr. M. H. Damme is President of the Executive Committee, and Mr. W. F. A. Daum is second secretary.

The Vickers' Aeroplane Contract

A contract recently signed by the Chirese Government with Messrs. Vickers, Ld., calls for the purchase of one hundred Vimy Commercial Type aeroplanes, ten of which are to be completed by the end of 1919 while the balance will be constructed during 1920. Messrs. Vickers will supply the cash and credit necessary to buy the aeroplanes and organize the ground establishments, the total price being £1,803,200. Payment will be made by the Chinese Government in 8 per cent. ten-year negotiable sterling treasury notes to be repayable by October 1, 1929.

China's Great North-West

Notes on the Economic, the Historical, the Topographical and the Human Features of a Journey through a Remote Territory Destined to have a Future of Far-reaching Importance to the Commercial and Industrial World.

By RODNEY GILBERT

I—From Peking to Paotou

One day when I was sitting in a tea-house in a suburb of the City of Lingpao, in western Honan, a young fellow strolled jauntily in, twirling a stick and humming a tune, and took the seat opposite me. He wore a long military overcoat, had a towel knotted around his head and was in every respect so fresh and clean that I assumed that he belonged to a local garrison. He opened a conversation at once, talking in the easy and assured manner which characterizes many military officers in China who have travelled widely in their own country, have met all classes of people and who know how to be friendly or even familiar with perfect courtesy. After he had asked me the usual questions which are essentially introductory to any Chinese conversation, I asked him to what division he belonged. He replied that he was not in military service at the time but that he was on his way to Hunan to join a brother who was a brigade commander under Chang Chin-yao, from whom he also hoped to obtain some sort of a commission. He then volunteered the information that the body of troops to which he had belonged had been discharged at Kashgar and that he was just at the end of a long walk across half of Asia. His entire baggage consisted in the clothes in which he stood and the stick which he twirled with such a *debonnair* manner. In one pocket he rattled a few ingots of silver and in the other a handful of cash. After some argument with the keeper of a little stall, he bought two cigarettes, lighted one and stuck the other behind his ear, paid for his tea with a caustic comment upon its quality and the price that he had paid for it, and went on his way resuming his tune and again twirling his stick.

Mr. Rodney Gilbert is already well known to readers of the FAR EASTERN REVIEW as an authority on Chinese affairs in general and on China's far North-Western Provinces and Dependencies in particular. In the travel notes which we begin to publish with this issue he presents an intimate view of conditions existing at the present time on the road from Peking to the Tibetan border, via Fengchen, Kueihuacheng, Ninghsiafu, and Lanchowfu, and on the great highway southwards from Lanchowfu through Kansu Province to Sianfu in Shensi Province. Mr. Gilbert has a facile pen and being a keen observer of things by the way contributes considerable interesting data to the general knowledge of the territory traversed which should be of permanent value to merchants who have already made commercial connections or intend to develop them in North Shansi, Inner Mongolia, Kansu, Sinkiang, or Shensi Provinces.—EDITOR.

The Art of Travelling in China

This man was the most perfect master of the art of travelling in China whom I have ever met. This art consists chiefly in doing without things which under any other circumstances and in any other country one would consider absolutely essential.

Once upon a time I set out for the remote West of China with a string of big carts, four servants and all the ingenious paraphernalia devised and advertised as essentials to the traveller in the wilderness; and I came back to the treaty port zone two years and a half later with all that I had found essential to life and peace of mind in a pair of tattered Turkish saddle-bags. I was much more comfortable coming back than going and when an opportunity was offered a little more than a year ago to make another expedition into the West, I determined to be guided solely by previous experience and to ignore the advice of solicitous friends and the promptings of the flesh, pampered as that flesh was by some years of residence in civilized surroundings. In spite of this resolution, however, both solicitous friends and *effete* habits had a certain amount of influence upon my equipment. First of all I was burdened with an official title and the official dignity that goes with it. Official dignity implied clothes, clothes implied boxes, and boxes implied servants. Since it was determined that I could not get along without boxes and servants, it seemed only right that I should put something in the former and provide something for the latter to do. As soon as it was discovered that I was to have boxes, thoughtful friends began presenting me with things to put in them—a typewriter, for instance, stationery and writing materials,

special garments adapted to special seasons and climates, medicines and, worst of all, books. The struggle between my own inclination to set out like the pedestrian whom I had met in Honan with a little silver in one pocket, a few cash in the other and a stick to twirl, and the painful duty of being officially dignified and of living up to my friends' conception

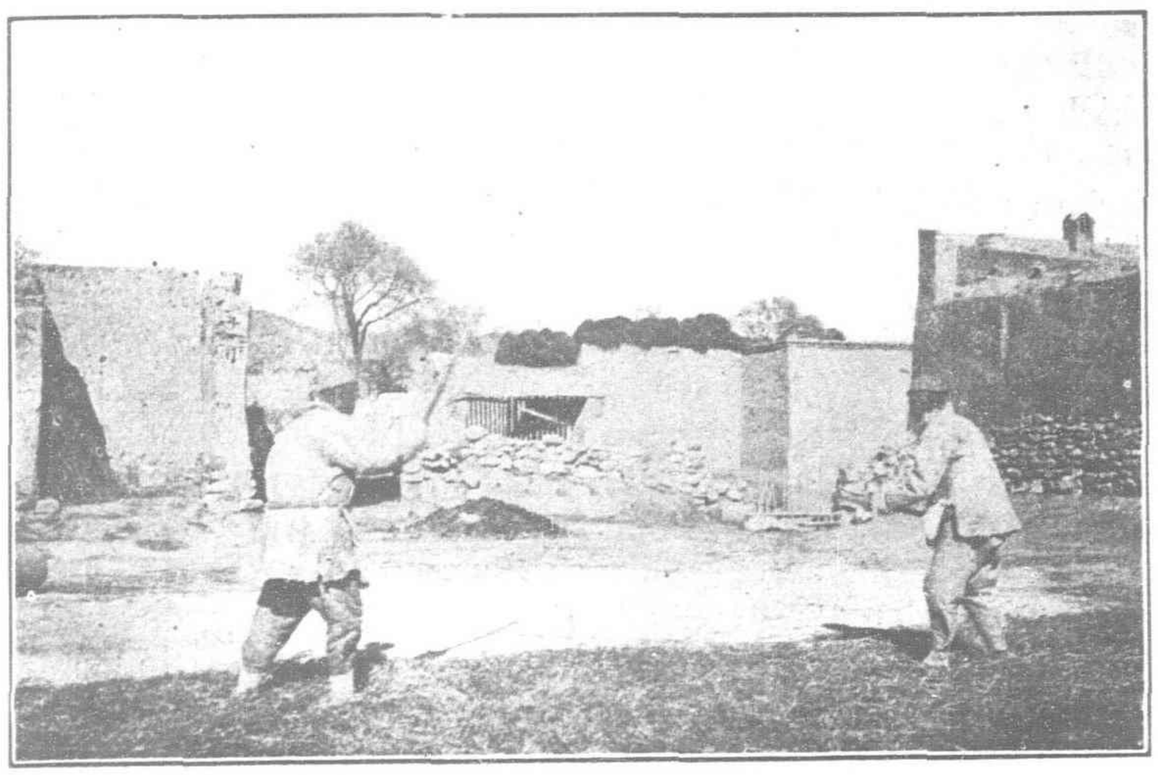


Photo: Roy Chapman Andrews

THRESHING WHEAT WITH FLAILS. THE COUNTRY BETWEEN FENGCHEN AND KUEIHUACHENG IS A HUGE WHEAT FIELD, MOST OF WHICH IS CULTIVATED AND HARVESTED WITH PRIMITIVE IMPLEMENTS

of a decent mode of travelling ended finally in a compromise. The day before I started I found myself equipped with two wooden boxes of size and shape adapted to the pack-saddle of a mule and weighing about one hundred pounds each and with one servant who knew nothing of foreigners and who, I assumed, would therefore make no effort to maintain me in a state of elegance after we had seen the last of running water, electric lights and railways. That same night, however, I overheard this would-be attendant taking lessons from the cook and boy in the mystery of providing a foreigner with what he wants under all circumstances. So it was with real satisfaction that I seized upon an opportunity still later in the evening to discharge him and thereby establish my independence of all Occidental influence.

The Town of Fengchen

On the morning of September 19, 1918, according to one calendar; on the 15th of the 8th moon in the seventh year of the Republic of China, according to the other, I set out on the Peking-Suiyuan Railway for Fengchen after having delayed the train for half-an-hour while a railway carpenter repaired one of my specially constructed boxes built to resist the wear and tear of any amount of overland travel, but which a railway coolie had managed to wreck almost beyond repair by dropping it from his shoulder to the stone sidewalk. The journey by rail was made without incident. I had not seen Fengchen for four years and while I remembered it as a dull and colorless little town, I had anticipated that the coming of the railway would have made marked changes. Although I arrived at dark I got the impression before I left the station platform that it was as dull and characterless as ever, and a stroll about town the next day confirmed me in this opinion. A few new inns had been built near the railway station. There were a few rows of shoddy semi-foreign shops stocked with cheap Japanese goods, and the police were a little more officious than usual; and these were the only signs of the booming prosperity which railways are supposed to bring into communities. I had been told before I left Peking that the Ministry of Communications, out of deference to my official dignity, which I have mentioned before as the weightiest part of my impedimenta, had wired to the stationmaster at Fengchen to assist me upon my arrival in finding lodgings.

When I stepped on to the platform, however, I was effectually swamped by a horde of hotel runners carrying lanterns upon which were inscribed the euphonious and elegant names of the various hostelries which they represented, and shouting their praises at the tops of their voices. On a previous visit I had made a note of the name of a little Mohammedan inn where the landlord had been particularly solicitous and the food unusually good. I asked if this establishment was represented in the army of envoys that surrounded me and had no sooner mentioned the name of the place when I was borne away at a run by two or three triumphant Mohammedans and was rushed up a dark alley and lodged in a neat little room before I had fully recovered from the bewilderment incidental to my arrival. I turned my baggage checks over to one of the runners and my specially constructed boxes designed to serve for all time, were hurled in upon the *kang* a few minutes later in a state of collapse, which was really depressing. My first care the following morning was to get a carpenter and to put him to work on my boxes. With the usual Chinese contempt for anything that is not made on strictly Chinese lines, he, and the entire staff of the inn, not to mention a few curious guests, stood about and made scathing comments upon the material, the looks, and the general construction of what I had considered the perfect fruits of much experience in travel by all manner of Chinese conveyance. After exhausting himself, the carpenter finally deigned to go to work and in a few minutes had reconstructed both boxes and had assured me that the hundred cash worth of science and labor which he had expended upon them had finally made them fit for service and that they would not again fail me.

I then renewed my acquaintance with the proprietor and with some *finesse* approached the subject of cart hire. Of course I talked of everything but carts at first and finally came around to them by telling him what excellent carts I had had four years before and what a moderate price I had paid for them. He exploded at once into a harangue on the general rise in price of all things, the increased cost of grain, the scarcity of good animals, the additional road taxes, and the general unreasonableness of cart owners and cart drivers. After he had gone on for ten minutes I was almost relieved to learn that the price had only doubled in the four years; and after much verbal fencing I agreed to entrust him with the office of hiring me a two-mule chair cart—good animals and an agreeable driver guaranteed—which was what we had both anticipated all along. This business discharged, we discussed

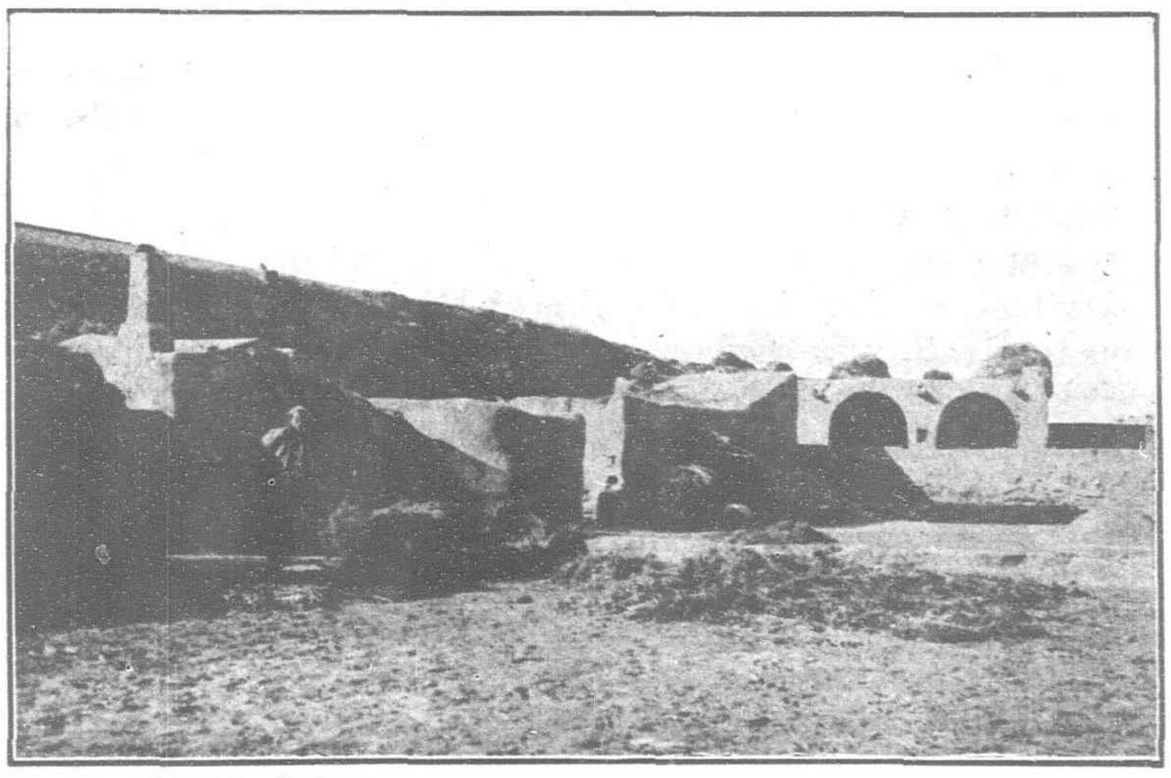


Photo: Roy Chapman Andrews

IN THE LOESS COUNTRY ON THE WAY TO KUEIHUACHENG FARM HOUSES AND GRANARIES ARE CUT OUT OF THE LOESS. THE GRAIN IS STORED IN THE STRUCTURE WITH THE TWO ARCHES

old times, old friends and Peking politics. The existing Government was subjected to the severest verbal chastisement, and we agreed that the outlook had never been gloomier. We compared notes upon pleasant places in the Far West, in Kansu and Turkestan, which we had both visited; we gos-

Photo: Roy Chapman Andrews

CARTS AT AN INN ON THE WAY TO KUEIHUACHENG. ALL HOUSES ARE MADE OF MUD IN THIS REGION

siped a little in bad Turkish which both of us had nearly forgotten, and talked of the war in which he developed an impromptu enthusiasm to complement mine. I then went forth and surveyed the dusty, dilapidated town, visited a dozen shops to see what was in them, bought a tin soap-dish for seven cents, and returned to the inn prepared to set out the following morning.

Cart Travelling in the Fengchen Valley

The cart was at the door long before I was up next day, and before I had finished breakfast my baggage had been roped to it with a thoroughness and vigor which made me tremble for my rebuilt boxes. At sunrise I cleared my accounts at the inn and set out on foot ahead of the carts across the flat agricultural country of the Fengchen valley. After a tramp of 20 *li* up a steady but easy grade leading towards bare loess hills my pristine energy was gone and I climbed into the cart to make the acquaintance of the cartman who had been guaranteed amiable. He was evidently agreeable enough but he was a Paotou youth, flatfaced and pock-marked, a little below the average in natural intelligence and considerably above the average in fluency in one of the most atrocious dialects in North China. After a few minutes of vain attempts at conversation I gave him up as hopeless and set myself to reacquiring the art of sleeping in a Peking cart going at a trot over a bad road. There had been a time some years before when I should almost have resented the suggestion that riding in a chair cart, or, as it is commonly known, a Peking cart, is exercise; but after rattling through the hills for 90 *li*, when we came in sight of the little group of dilapidated inns on the shore of the picturesque lake known as the Tai Hai Tan to the natives and as something different on every map that I have seen, I became conscious of a general state of soreness and of a number of particular bruises which every jolt of the cart aggravated. I anticipated with pleasure rolling into the first convenient inn yard and stretching myself upon a *kang*. When we came into the village, however, we found every inn full. Large bodies of troops were travelling towards Fengchen to take delivery of consignments of arms and ammunition to the various military commanders in Kansu, and hundreds of little one-horse carts with solid wheels, hauling the autumn crop of licorice, were going the same way, so that every inn was full to its utmost capacity. There was nothing to do but go on and as the sun was still high, we rattled along for another 20 *li* and finally found a wayside inn in which there was at least room for the cart.

The inns on these roads in North Shansi are of a type which seems peculiar to the country. There is usually one small apartment known as the "chamber of honor" in which persons of official, rank or of conspicuous wealth are housed, while all other guests sleep on one huge *kang* in the kitchen which is heated to a griddle-like temperature. Many of these *kangs* will accommodate 50 or 60 people, and when guests are numerous the landlord of the inn supervises the packing in of his guests in a manner which seriously ruffles the dignity of travellers who are not accustomed to the rough ways of the border. On this first night out I found the "chamber of honor" occupied and the kitchen not only over heated but filled beyond capacity with travellers of all degrees who were wrangling at the tops of their voices about the space which they thought they and their baggage had a right to occupy. As soon as I had had a meal indoors I returned to the cart, had the box which was roped upon the shafts removed and made up my bed. This was comfortable enough and after I had tucked myself in I was just dozing off, when two mules which were playfully chasing each other around the yard kicking each other in the ribs, dashed past my cart flinging their hoofs about them and contrived in some way to kick the bottom out of the box which I had put upon the ground. I crawled out to find my effects—all the valuable medicines, books and good clothes reserved for official occasions—scattered about in the dust and refuse of the courtyard. Several sympathetic cartmen helped me to collect them and stuff them back in the broken box which had to travel wrong side up as far as Kueihuacheng.

The following two days and nights were very similar to those which I have described. The entire length of the highway was dotted with little caravans of licorice carts, each cart pulled by one pony and loaded with three huge bales of licorice root. In the transport of this commodity local cartmen seem to have departed from all the conventions. On the main highways of China there are two types of cart in common use, the chair cart drawn by two mules, and the "big cart" drawn by four animals, one in the shafts and three abreast in long traces which are made fast to the axle. Each cart has its driver who is an expert in the handling of a long bamboo whip with a seven-foot rawhide lash, in the use of the most lurid Chinese profanity, in evading the exactions of likin officers and in establishing himself comfortably on the hottest part of whatever *kang* is available. The licorice cart is an adaptation of the Mongolian ox-cart. The wheels are small, have no tires, and are made fast to the axle, axle and wheel turning in one piece between pins driven into the under side of the wagon bed. Sometimes the wheels are solid, built of planks about two-and-a-half inches thick, while others have a heavy wooden felloe braced by an X of heavy timbers in lieu of spokes. Each carter has three or four of these small carts in his care and ponies are used instead of mules in hauling. Every effort is made to obtain cheap accommodation and where prices are high it is not uncommon to find the whole caravan camping in the open as one sees trains of ox-carts doing in Mongolia.

The country between Fengchen and Kueihuacheng is neither interesting nor picturesque except in the vicinity of the Tai Hai lake, thirty miles fren Fengchen, which lies in a setting of loess hills dotted with temples and farmhouses, pleasantly green in the summer and rugged enough in outline to be rather picturesque under winter snows. The main highway runs through a range of loess intersected by deep ravines between the Fengchen valley and this lake, descends

abruptly almost to the north shore, leads through a few dilapidated villages for ten or fifteen *li* and then ascends again into another loess range which is as much like all other hilly country in the loess districts of North China as one country village is like another. The country is character-

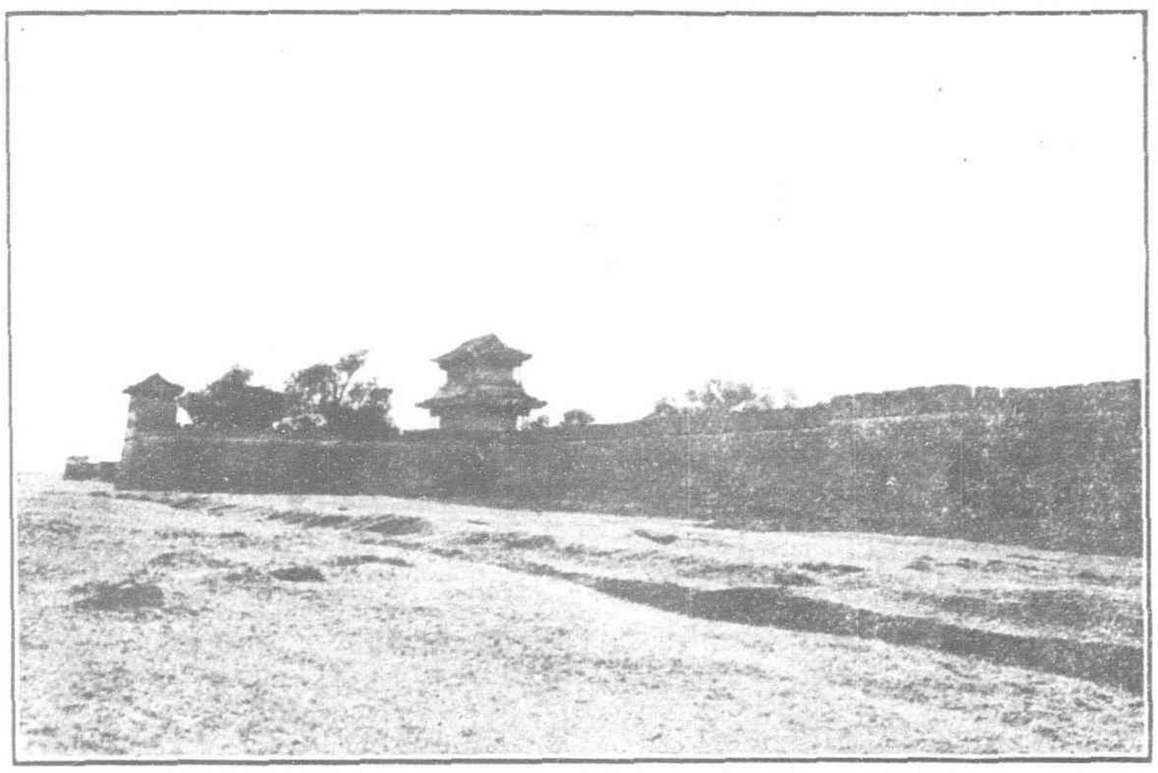


Photo: Roy Chapman Andrews

THE WALLS OF KUEIHUACHENG

istically brown, and in the autumn when the crops have been cut is depressingly barren of all trees and shrubs. In some of the little valleys in which there is running water, a few willows and peach and apricot trees relieve the monotony and are almost attractive. At a village called Shihjenwan (Stone Man Bend), a day's journey from Kueihuacheng, one comes upon a stretch of meadow land with fat cattle dotted over it which for some reason is more suggestive of the Occidental homelands than any feature of Chinese scenery that I have ever seen. From this village the road follows the rocky gorge for about forty *li*, descending gradually to the great open plain about Kueihuacheng.

It was at this point, fifty *li* from the city, that I obtained my first lodging in an inn and after spending two nights in a cart, it was something of a luxury. I had discovered on the second night that a large bottle of castor oil had broken in the box which was strapped on the back of the cart and was oozing out of the cracks. At the time I had not the courage to unpack and ascertain the damage done. The sum of my tribulations was complete when on the fourth morning I looked down a well in the inn yard to see how deep it was and a shining silver dollar shot from the breast pocket of my shirt and fell with a "plunk" into the depths. At noon on the fourth day after having passed the official city of Suiyuan which contains little or nothing but yamêns, barracks, and a telegraph office, and the small Mongol trading community which clusters about the little monastery of "The Blue Enclosure," with its squat little Indian temple surmounted by five pagodas, I arrived at the big commercial quarter of Kueihuacheng proper.

The Great Wall, the Kueihuacheng Plain, and Mongol Invaders

Kueihuacheng and the plain on which it lies represents the one grave omission of the builder of the Great Wall. One of the striking features of the Great Wall is that it will go almost any distance out of a direct line to include an arable plain or a fertile valley. Nothing that gave promise of agricultural development to the Chinese farmer of Chin Shih-huang's day was left outside the barrier, for the Great Builder took particular pains that nothing should be left to the Tartars of the North but grazing lands which the Chinese have never had either the herds nor the inclination to develop. In the Great Builder's time the Kueihuacheng district was a Hun stronghold and it must have been that the Northern raiders were too firmly established there to be dislodged or their country would certainly have been included within the barrier which has defined China Proper for more than twenty centuries. Throughout the present length of the wall there are many long stretches where all masonry has disappeared and where the earthern core has crumbled into a low mound crossed and re-crossed by great roads and sheep tracks. Yet its line so clearly marks the northern limits of good farming land from Shanhaikuan to Chiayükuan that even where it no longer constitutes a physical obstruction one still finds agriculture flourishing up to its scarcely distinguishable ruins, while the sheep and camels of the nomads graze unmolested beyond it.

The Kueihuacheng district is one of the exceptions, and by leaving it beyond the pale, the builder of the Great Wall committed a technical error which until very recently has been a continual source of vexation to the inter-mural Chinese. One breed of conquering Tartars have succeeded another in their migrations and in all ages the nomads have found the Kueihuacheng country a veritable elysium as compared with their sterile plateau country and have made it a strategic base where they fattened their cattle and their war ponies before making devastating raids upon China. After the great Hun migration had drained the country north of Chihli and Shansi of the Hsiung-Nu raiders, a great movement of Manchurian tribesmen set in and these people who subsequently got as far west as the Lopnor district in Turkestan, found the Kueihua country a convenient recuperating ground and rested there for several generations. The Toba, the Tartars who subsequently lost themselves so completely in China after constructing the famous cave temples in Shansi and Honan which are still China's finest Buddhist monuments, found and appreciated this extra-mural base. Then came the "Crows," the Turks from Lake Balkhash who obtruded themselves upon the attention of the Tang dynasty, subsequently upheld it and finally established the later Tang dynasty in the confused era of the five dynasties. The remnants of this people, together with their Tartar friends and relatives maintained a semi-independent state at times at war with the Chinese and at times in alliance with them until the coming of the Mongols.

The Mongol invaders during their conquests and during the period of their decadence showed full appreciation of this one spot of fertility beyond the Great Wall for reorganizing and rehabilitating their forces, and finally when they went into their Buddhistic decline established here a monastery about which grew up the trading town and camel market through which a very large percentage of their commerce with the Chinese has been conducted since the beginning of the Manchu dynasty.

Although Kueihuacheng is now virtually Chinese, with a large garrison, a super-active police force and a telephone system, there is still an air of freedom and a lack of constraint about the life there which makes it picturesque and attractive. The Tachingshan, the great range of granite mountains which shelters the plain from the Mongol winds on the north, still affords shelter to veritable armies of bandits and outlaws, both Mongol and Chinese, who appear with sufficient frequency upon the highways to thrill the adventurous traveller and to intimidate the wealthy merchant. The Mongols of the north and northeast on their pilgrimages to Wutaishan, to Kumbum, on the Tibetan border, and to Lhassa in Tibet, still make it a point to visit Kueihuacheng and to waddle in wide-eyed bewilderment through the new streets of splendid Chinese shops in search of the little old trading town and the now inconspicuous monastery which furnished their fathers and

grandfathers with subject matter for a lifetime's gossip in the day of their pilgrimages. There are still more camels coming and going in Kueihuacheng than in any city in China. Seventy-five thousand are owned in this city and set out every autumn on the long trails to Urga, Uliassutai, Hami

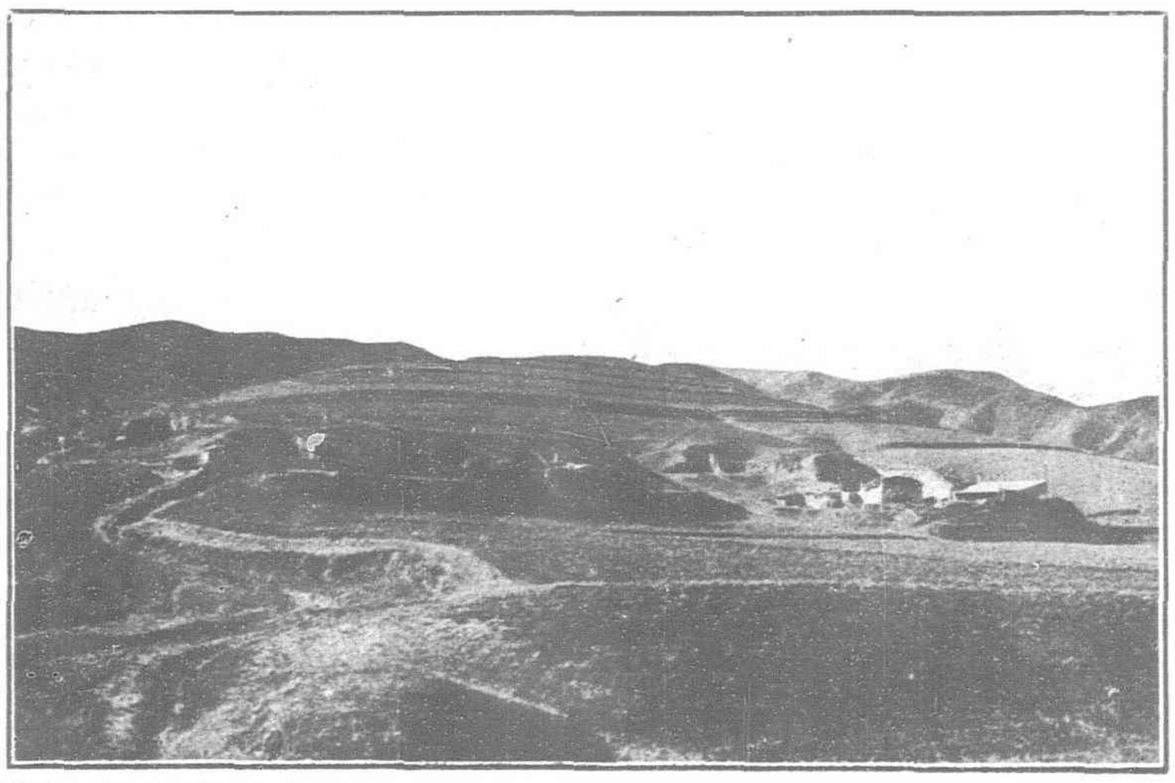


Photo: Roy Chapman Andrews

TYPICAL COUNTRY BETWEEN FENGCHEN AND KUEIHUACHENG. NOTE THE TERRACING TO THE HILL TOPS. THE MAIN ROAD IS SHOWN ON THE LEFT OF THE PICTURE

and Urumchi. There was a time when every merchant in Kueihuacheng was exceedingly proud of this camel traffic and boasted of the number of animals that came and went, but in the last few years they have become infected with the modern spirit, are impatient of the tedious gait of their ungainly transport animals and yearn for motor-cars and motor-car roads.

Road and Railway Problems

Kueihuacheng is a natural distributing centre for Mongolian trade and it seems inevitable that just as it has been the centre for all Mongolian trade by camel with Western Mongolia and Turkestan, not to mention Kansu and Northern Tibet, for several centuries, it will eventually become an equally important centre for railway and motor traffic into these remote quarters of China. A railway was long ago promised Kueihuacheng. The pledge exists in the name of the Peking-Kalgan Railway which has been known for some years as the Peking-Suiyuan Railway, Suiyuan being the official city of Kueihuacheng, a small garrison town built for Manchu occupation a mile or so from the trading centre. The railway builders have in the past encountered both financial and geographical difficulties. The old camel highway from Kalgan to Kueihuacheng runs far north of the present line of the railway from Kalgan to Tatungfu and Fengchen. When the Kalgan-Fengchen extension to the Peking-Kalgan Railway was built, it was found impracticable to follow the camel road but it is now found equally impracticable to follow the great highway from Fengchen to Kueihuacheng and the present construction of an extension from Fengchen is leading due north from this last mentioned market town and will again rejoin and follow the old caravan route. If the Peking-Suiyuan Railway ever lives up to the promise of its name, the only difficulty that lies in the way of either railway or motor transportation into the remote places of the west and northwest is this short stretch of country between Fengchen and Kueihuacheng. The loess hills which the writer crossed easily enough in a cart and which offer no obstruction to camel caravans or trains of pack-mules, are so badly cut up by ravines and gulches that the construction of a motor road which would seem simple enough upon an initial survey would really be not much easier than would be the construction of a light railway. The cart highway follows through many miles and cuts across the crumbling edges of ravines and has to be straightened after every little freshet with piles of brush and fresh layers of earth. This is true of every road through loess country, and anyone who has travelled in North China will appreciate the difficulty of converting such a highway, which does well enough for those who have time to stop and repair the road as they go, into a substantial motor road safe and permanent enough for commercial traffic.

More than a year ago the Ministry of Communications planned to build a motor highway from Fengchen to Kueihuacheng and from Kueihuacheng to Paotouchen, where connection was to have been made with a motor boat service on the Yellow River installed by the Governor of Kansu which was to have connected Ninghsiafu with Peking. At the same time the Industrial Commissioner in Lanchowfu was planning a motor road from the Kansu capital to Ninghsia which would have established a through line of communication to Peking and would have reduced the journey which varies from thirty to sixty days, to one of ten days or perhaps less. The merchants of the big trading centres outside the wall were fired to a high pitch of enthusiasm with this promise of improved communication, which was kept alive by the actual appearance at Paotou of two flat bottomed motor boats, so that when the motor car road from Fengchen to Kueihuacheng did not materialize, the business men of Kueihuacheng and Paotou took it upon themselves to smooth the path of progress and attempted to put the loess highway west of Fengchen into condition for motor car traffic. The road was levelled a little and some cars were purchased, but owing to the character of the soil and other difficulties which they had not anticipated, the venture was not wholly a success and it is probable that motoring into the far west will not prove attractive or profitable until the railway to Suiyuan has been actually completed. Beyond Kueihuacheng there are few obstructions.

The four days' journey from Kueihuacheng to Paotou runs through very flat country, a strip of well watered land lying between the Tachingshan and the range of hills which forms its western extension on the north and the Yellow River on the south. From Paotou to Ninghsia it would be a simple matter to find an equally level course either by following the bend of the Yellow River or by cutting due southwest across the Ordos Desert. From Ninghsia to either Lanchow or Lianghow the levels would be no obstacle whatever but heavy sand south of the city of Chungwei, which is four or five days' journey from Ninghsia makes cart travel more than painful and it is difficult to see how a motor road, which would be at all permanent, could be built through the shifting dunes. If, however, it were possible to get far as Lianghow, the journey from that city west, even as far as the Pamirs, would be a simple matter for where the road crosses deserts it has a gravel bed which surpasses macadam, and through the irrigated agricultural country of the northwest nothing more than a little drainage would be required to keep the naturally hard roads in excellent condition.

But to return to Kueihuacheng, I rumbled into the commercial quarter at eleven in the morning on September 24 and made the acquaintance of the police force. The police idea is one of the ultra-modern monomanias which seizes upon the Governors of interior cities in China when they are moved to demonstrate how thoroughly up-to-date they can be in their management of public affairs. They go in for quantity rather than quality and as big things seldom happen they find it necessary to make the most of little things. Where foreigners are concerned the police of interior cities justify their existence by calling for cards and inspecting passports with an assiduity which the wardens of the peace in any large city

have long since outgrown. In my progress through the main streets of Kueihuacheng I was relieved of a card in each police district and was finally escorted to an inn in the west suburb, which the cartman recommended, by a whole squad of self-important functionaries. Upon my arrival there they inspected my passport and departed to report to the local station.

Bliss in a Chinese Bath-house

After establishing myself and opening my boxes, I set out to find a bath-house, following minute directions given me by the inn-keeper. I went back into the heart of the business centre, asked my way through the market place and finally

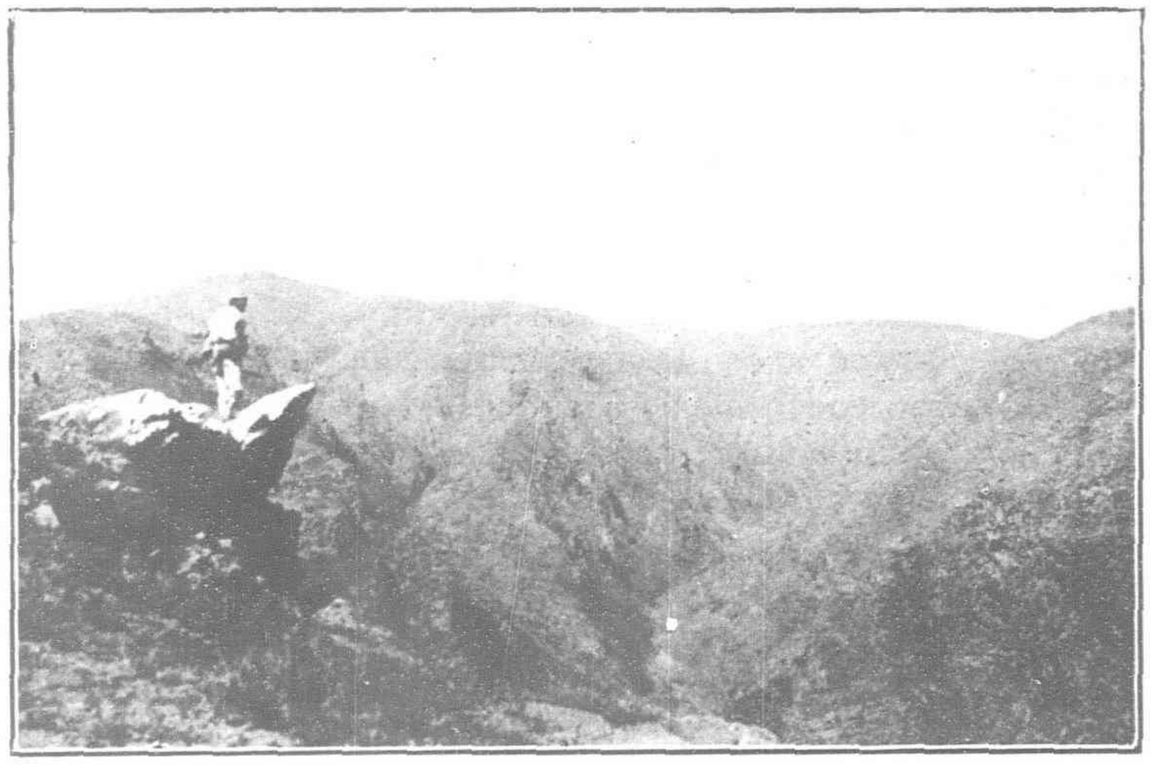


Photo: Roy Chapman Andrews

TYPICAL MOUNTAIN COUNTRY ABOUT KUEIHUACHENG. THE MOUNTAINS ARE ALL TREELESS AND ARE THE HOME OF THE LAST SURVIVOR OF THE FAMOUS BIG SHEEP

came upon the establishment that I was seeking in a narrow alleyway that was running with soapy water and echoing the joyful hubbub of the bathers within. These places of purification are not usually patronized by foreigners travelling in the interior of China who are obsessed with the idea that they must certainly be filthy and who prefer to perform their ablutions out of a tin basin when nothing better is at hand, rather than steam in the commodious tubs which nearly every hsien city in China provides for the travel-stained wayfarer. It is, therefore, fair to assume that they are little known and a description of a Chinese bath-house may not be amiss.

Heat is the first requisite. In all seasons and all weathers, the rooms of a Chinese bath-house are hermetically sealed and are heated to a suffocating temperature. Shower baths, tubs, and, in larger establishments, tanks are provided and bathers are divided into three classes according to the service and accommodations which they require, or, rather, care to pay for. The first courtyard is usually given over to barbers of the old school with their portable water heaters, dirty towels and trays of implements for shaving, clipping and prying into the interior of their patrons' ears and noses. As the visitor progresses beyond the first phalanx of the shearers and the shorn he usually finds himself in the dressing room of the third-class bathers where cartmen, coolies and others of the riff-raff are sitting about in all stages of undress, either preparing for the infrequent ordeal, the trial by water, or drying themselves. Beyond this gloomy purgatory of steam and raucous gossip the visitor finds himself in the quarters of the second class, out of which open the private bathrooms of the first-class patrons. Here one finds the middle class gentry perched high up on a narrow *kang* which runs around all four walls of the room, which is covered with towels and is divided into narrow individual dressing sections by *kang* tables upon which tea, cigarettes and cakes are served. The patrons of this department have this common dressing room but are provided with individual tubs in small cabinets in corridors leading out of the room. In this common room they undress, wind themselves in a towel and shuffle out in the sandals provided when the attendant announces that he is ready to parboil them in the compartment assigned to them. It is the privilege of the bather then to sit up to his waist in water, which was boiling when it was poured in, and to stew for any period that pleases him. It is no bath at all unless the bather emerges suffused with a bright lobster pink, which does not subside for three-quarters of an hour.

Fastidious Chinese who are distinguished among their fellows by the fact that they patronize the bath-houses several times during the month have told me that they never think of bathing unless the room and the water are subsequently heated to bring out a violent perspiration and they sometimes sit an hour in the tub and as the water cools have the attendant ladle some of it out and put in fresh boiling water. It will be understood that most of them emerge in a state of light-headed exhaustion and find it necessary to sit cooling for a considerable period before venturing out of doors, especially in cold weather. The visitor will usually find, therefore, when he enters one of these dressing rooms, forty or fifty bright pink celestials smoking cigarettes, clipping their nails and conversing with solemn decorum in the altogether. In the better establishments the modern barber with a bewildering array of razors, scissors, and perfumes occupies a stand in the middle of the floor while chiropodists are always within call.

The bather of the first class is given a dressing room of his own heated to a temperature several degrees above that of any other room in the establishment and directly connected with a small and stiflingly hot bathroom. A personal attendant helps him to remove his clothes and he drinks tea while the tub is being filled. When he emerges the attendant provides an abundance of clean towels, more tea and more cigarettes, and insists upon him rewashing his face. After a period of tea drinking his back is then scrubbed, he is sprayed with cologne and again invited to wash his face. Another period of tea drinking elapses and a fresh basin of hot water is brought, much perfume is poured into it and the attendant again insists that he wash his face and hands preparatory to dressing, after which he may take his time and leave when he feels sufficiently cooled. In Kueihuacheng all of this costs about eight coppers, but in larger and more pretentious places it may amount to as much as fifty cents. Towels, tubs, and furnishings always appear to be scrupulously clean, and after a long journey over dusty roads a Chinese bath is not a function to be lightly spurned through prejudice by anyone who has once enjoyed it.

The Pressing Attentions of the Police

Needless to say the police found me in the bath-house. A respectful sergeant was introduced to me who requested a card at a time when I had neither cards nor pockets to put them in. He withdrew to an outer compartment announcing that he would wait until I had finished bathing. I found him later waiting for me in the street, and he accompanied me to my inn where he took delivery of a card and had a glimpse of my passport. However an hour later when I was dining, a Mr. Lin, district chief of police, arrived with several retainers, asked numerous questions, obtained another card and read my passport carefully. He had scarcely gone when another sergeant of police arrived with several officers and announced that he had been instructed to post one at my door and the other at the gate of the inn for my protection, and that they would accompany me when I went abroad and see that I got proper respect from the mob. Against this I protested vigorously but all to no particular purpose, and for the rest

of my sojourn I never lost sight of the police except on one occasion.

I had intended to walk about Kueihuacheng as I had done in freer and better days when not hedged with official importance but I found that being heralded and trailed by

Photo: Roy Chapman Andrews

CAMEL CARAVAN ON THE WAY TO KUEIHUACHENG

the police through the streets made me so conspicuous that all progress was uncomfortable and I determined to stay in doors. One afternoon, however, I opened my room door cautiously and found that the officer who should have been standing there at attention was across the court exchanging courtesies with the cook who had provided him with a pot of tea. I got into my hat and coat hastily, scurried down the court, and reached the gate of the inn without having been detected by my guardian. Fortune favored me there also for the two men who were posted at the street entrance were so busy listening to an old Chinese woman who was engaged in the favorite Chinese method of relieving her feelings known as "cursing the street" that I slipped past them and got around the corner without attracting attention. I was then comparatively free and enjoyed the afternoon seeing such sights as Kueihua offorded, and making my way in other police districts with a generous distribution of cards. When I finally returned I found my three guards in a state of great excitement and they were much relieved to have me back. An officer from the police station had called and was waiting to copy my passport, which he did thoroughly, even drawing in the big seals in pencil. Police officers, military officers, magistrates and deputies of one sort or another, called thereafter in such rapid sequence that I lost all track of them, and only remembered that my passport was copied three times in all.

After four days of this sort of surveillance I hired another cart and got away with four mounted troopers in my train and with a one-eyed Mohammedan cartman, who was a genial and helpful old man, and who handled his excellent animals with the *finesse* which characterizes all Mohammedans.

On the Way to the Yellow River

We had scarcely made a good start when we began to hear of bandits, and we continued to hear about them throughout the next four days. Travellers coming and going had all encountered raiding parties or had seen them in the distance, and my four soldiers were constantly on the alert. Unlike most Chinese escorts whom the officials insist on inflicting upon travellers, these provided by Tsai Tutung were well uniformed, well mounted, equipped with good rifles, and an abundance of ammunition, and seem thoroughly soldierly and businesslike. Whenever a report of robbers ahead came to us, instead of looking furtively for cover, as most escorts do under similar circumstances, they loaded their rifles and got well ahead on the lookout for the outlaws.

On such journeys as this one usually falls in with numerous fellow travellers, and both cartmen and travellers group together for society and protection. The robbers who were raiding from the foothills of the Tachingshan had made life on the highway so exciting for the merchants that travelling was largely suspended, and until we reached Salachi on the night of the third day we had no fellow travellers and met very few coming from Paotou, the road being resigned to camel caravans transporting coal under military escort from a mine at a place called Ta T'an, near Salachi, where some anthracite is found.

At Salachi we fell in with a party of Mohammedans who travelled with us the next day to Paotou. One was an old Mullah, who had a Moslem school at Hsuanhuafu, and who was returning to Ninghsia, in Kansu, for a vacation. He had been twice to Mecca in his youth pretended to an intimate knowledge of Occidental customs as nearly all Hadji do, and listened eagerly to what I could tell him of Moslem participation in the war upon Turkey. His companion was a dealer in skins who had been to Kueihua to buy the green buckskin which is manufactured there and in Hsuanhuafu, and the sheepskins which are tanned in imitation of it. He also had a number of the skins of the wild sheep from the Tachingshan which are prized in certain parts of China as a lining for robes. The wool of these pelts was yellowish brown but the dealer informed me that the really expensive skins all had a greenish caste and were of a much finer texture. I spent a long evening gossiping with this "hui-hui," and in the morning set out with them for Paotou.

Fifty *li* (a *li* is about one-third of a mile) from the city we passed through the town of Sarchi, which lies under a precipitous sandstone cliff upon which is perched a little white Mongol lamasery, which can be seen for many miles over the flat country.

The Prosperous Market Town of Paotou

Twenty *li* from Paotou on rising ground one gets an excellent view of the Yellow River spreading out in many shallow channels over the mud flats. As it was near the end of the boating season, on the stretch between Ninghsia and Paotou, the current where I saw it was fairly dotted with large flat-boats bound for Hokou, where they are sold each year in the autumn to merchants who float them down the Yellow River into Shensi and Honan. These boats are built of timber which is grown on the banks of the irrigation canals north and west of Ninghsia. Many of the Mohammedan boatmen make a practice of selling their boats after each trip down stream from Ninghsia and of hastening back to build fresh boats for the next trip. None of them ever uses a boat a second season. These crude vessels are roughly spiked together and after carrying produce from the Kueihua district into Honan they are broken up and sold at a good profit as lumber.

We arrived in Paotou about 4 o'clock in the afternoon on the first of October, and, after making a vain search for an old Mohammedan friend who had kept an inn on a back street upon my previous visit, I put up with a dealer in pepper who accommodated travellers in the courtyard back of his shop on the main business thoroughfare.

Paotou is a thoroughly prosperous Chinese market town with well built and well stocked shops and particularly substantial looking houses. The Chinese are in evidence everywhere and only an occasional Mongol is to be seen in the shopping districts parting stubbornly with his silver or travelling through with camels or horses. Yet here, even

more than at Kueihuacheng, there is the free and unconstrained air of the border trading town. Like most of these cities that have grown up about what were once Mongol settlements or religious centres, it is not laid out by rule and square on perfectly flat ground as ninety-nine out of a hundred Chinese cities are. It is half on the plain and half on the foothills and the barrier of red earth which surrounds it is forced by the character of the country to emulate the great wall, climbing steep hills and dipping into deep ravines and gullies.

The City is independent of outside water supply, which is not true of many a Chinese fortified city more deliberately laid out, for in the gullies to the northwest of the residential district are a number of strong springs from which water is hauled about town in little carts. The average Chinese city depends upon a stream or river outside its walls in time of peace and upon polluted wells and stagnant ponds in time of seige. In Kansu the Manchus once built themselves a city on a hill with walls, official buildings, barracks and all complete and then discovered after all was completed that it was so far from water that no one could afford to pay the carriage on this prime necessity.

October winds in this Mongol borderland are cold and piercing and from the north wall of the City when there was a flurry of snow in the air, the rolling hills looked grey and cold but the little valleys which one finds after some exploring, were then still green and attractive and all seemed to support a surprising number of mills for which mountain streams supplied the motive power.

(To be continued).

The Pottery Industry of Shekwaan, Kwangtung

Mr. Yan Tsz-chiu gives the following information on the pottery industry in Shekwaan, Kwangtung Province, in the course of a paper on "Chemical Industry in Kwangtung Province" in the "Journal of the North China Branch of the Royal Asiatic Society; Vol. L. 1919."

Shekwaan is the centre of the pottery industry in Kwangtung. The industry is about 700 years old. Although it is so old, yet there is little improvement, because the potters are uneducated and conservative.

The industry was centred at Shekwaan, because at first there used to be clay in Shekwaan available for use. Later it was found that the clay in Tungkoon was better, so they bought it from that district: they also use clay from Fayuen. The Tungkoon clay is more plastic, while the clay from Fayuen is stiffer.

Before the clay can be used, it has to be mixed with sand in the proportion of 20 per cent. sand and 80 per cent. clay. Then water is added to make it soft and uniform in texture. The clay and sand have to be thoroughly mixed.

From 12-13 piculs of clay and sand are mixed at one time, and for a mixing machine they use the hands and feet of a man, who mixes the clay and sand by raising and stamping his feet; and stirring with his hands. It takes four hours to make a batch.

After the mixing is done, the potter attaches big lumps to a wall to dry for 24 hours.

The clay for fine work such as dishes and plates is mixed for 24 hours with a machine mixer and is then dried. The clay which is to be moulded must be drier than the clay to be made on the potter's wheel. Those to be moulded must have a higher percentage of Fayuen clay, being less plastic.

When the clay is dry, the big lumps are cut into sheets by means of a piece of wire tied to a bow, and drawn through the pile of clay, the wire is raised through one notch and drawn toward the man's body. Then the sheets of clay are allowed to dry for an hour in the sun. There are three ways by which the articles are formed:—

I.—Some of the articles such as dishes are formed on the potter's wheel which is made of wood. Two men are needed to each wheel, and there are seven wheels in a factory. One man puts some ash in the wheel so that the dish formed is not so sticky, and then he turns the wheel with his hand. A small dish is completed in 8 seconds, is taken by the other man with a bamboo, and is placed on a piece of board and taken to be dried. Sometimes the partly dried mud is pressed in moulds to form one surface of the article, the other being completed on the wheel as is the case with plates and dishes.

The articles are very slowly dried at atmospheric temperature, and then burned at a low red heat to give them sufficient coherence to permit of glazing.

II.—Some of the articles are made in the mould. At first the mould is made of wood and then from the wooden form a clay mould is made, which is burned in a less hot fire, and using less time. The moulds are only burned in the kiln for 4-6 hours, while the articles are burned for from 12 to 24 hours. The moulds are filled with a sheet of clay, and the edges are cut off in order to make it smooth.

III.—Figures of animals are made with small tools by hand. These require more time and skill than those made on the potter's wheel or in the moulds. Some of the articles such as tiles are formed in the moulds and completed by hand work. For instance, two pieces of tiles are joined together, and a band is put around the joint and smoothed out by the hands.

In making large jars like Kam Ta, five pieces of clay are used, the pieces are made separately and are joined together forming a truncated cylinder and are then worked to the shape desired.

After the articles are formed they are piled in a kiln to be burned. The kilns are long tunnels, about 200 feet in length. The smaller end of the kiln is at the bottom which is $3\frac{1}{2}$ feet in width and is $3\frac{1}{4}$ feet high. The wall of the kiln is 8 inches thick, and they are built of vitrified bricks. The kiln is built on the slope of the hill and inclines with an angle of 15 to 20 deg. It is not uniform, the higher up it goes the larger it gets. Fire is started at the bottom of the kiln as in an ordinary furnace. About 2,000 catties of wood are used for one burning, depending on the length of kiln and the kinds of things to be baked. Firing is begun at the bottom in the morning and goes up to the top at night. On the top and sides of the kiln are holes which are 32 inches apart. They are for putting in fuel from time to time. There are five holes in each row. These holes are not very large, but the draft underneath is very strong.

The top of the kiln is covered with the dishes to dry. The articles which require a stronger fire to burn are placed near the upper end of the kiln. For instance, flower pots, tiles and fancy things are burned at the upper end of the tunnel to get a higher temperature. For burning figures and finer articles, they use a small kiln in the shop.

Then the articles have to be glazed. There are three kinds of glazes. The green glaze consists of a mixture of copper oxide, powdered glass, some ashes of rice and wood and river mud which is used as a reducing agent. For the blue glaze, they use English green, and for the yellow glaze, lead oxide is used.

The finely powdered glazed mixture is stirred up with water to form a cream, into which the articles are dipped and at once withdrawn. A layer of the glaze adheres to the surface, and after drying the articles are ready for the second or glaze burning.

Common dishes are glazed from the inside. A little of the liquid is put inside and turned. Then the unused liquid is poured out. If any decoration is to be done, the design is either painted or moulded upon the surface of the article before glazing.

Various kinds of articles are made in Shekwaan. The most common ones are the glazed earthenware, jars of many shapes, tiles (fancy and plain), roof tiles, green and blue tiles, verticle or bamboo tiles, railing tiles, dishes, plates, teapots, water pots, figures of animals, etc.

As these articles are easily broken if the burning is not efficient, so 80 per cent. is considered a very good result.

It is strange to see that the potters in Shekwaan do not own the kilns, but the kilns are rented, and $10 are charged for each burning per kiln. There are about 70 kilns in Shekwaan and several thousand laborers are employed. Each laborer is paid by

the number of pieces of work he does. But the maximum amount they can earn a day is 80 cents (Cantonese money). There are women laborers as well as men and they do the simpler kind of work, but there is no child labor.

The potters must go through an apprenticeship of six years; during this time they receive no wages. They form a number of guilds which are organized according to the kind of pottery, as each kind of pottery has one guild. In order to join the guild, one must pay the sum of $150.

Porcelain or chinaware is not made in Shekwaan but is made in Kochow. The best kind of porcelain work is done in Kongsai. The clay used to make chinaware is different from that used in the pottery.

While the processes used in the manufacture of the articles in Shekwaan and Kochow differ in details, fundamentally they are the same and may be summed up under three heads—namely (1) the preparation of the body of the ware; (2) the process of glazing and (3) the decoration.

The kilns in Kochow are not built on the sides of the hill as those in Shekwaan, but are built like small towers. The work done here is much finer than that in Shekwaan.

Building bricks are chiefly made in Namkong, Chingyuen and Tungkoon (green bricks) and also at Imbo (white bricks). For making bricks the river mud and clay which contains no sand is the best. The bricks are formed in moulds.

The simplest form of moulding consists in pressing the soft clay into wooden frames which have been dusted with sand to prevent sticking. The operation is done by hand. Each man makes about 300 bricks a day.

After moulding, the bricks have to be dried before burning. This is done by spreading the bricks and allowing them to dry in the sun. The bricks having been thoroughly dried are placed in kilns and burned. The temperature and time of burning depends upon the kind of clay employed and the degree of hardness desired. Each kiln can hold 70,000 bricks, and usually the bricks are burned for 7 days, and cooled for 2 days. In Namkong there are about 10 kilns. Green bricks are made in Tsingyuen and white bricks are made in Imbo.

Lime is burned in kilns dug out of the earth. You can see this in Tungshan (not far from Canton). Shells which contain calcium carbonate are used and they are mixed with fuel and burned until they are changed to lime and carbon dioxide.

There are two kinds of lime kilns, namely continuous and periodic. In the continuous kilns less fuel is used and much time is saved. In Kwangtung, you can only find periodic kilns. They are 12 feet in diameter and 3 feet deep.

In America, the kilns are built of bricks and are usually from 40-45 feet high, by 7 feet in diameter.

The lime kilns in this province require much fuel and time, but are probably preferred because of the simplicity and cheapness of building. The lime obtained is not pure, but is contaminated with ashes.

After burning, the kiln is allowed to cool. During the time of cooling, discharging, and recharging, the kiln stands idle, and thus much time is lost. Moreover, a large amount of fuel is necessary to heat the walls of the kiln after each recharging, so that the method is not an economical one.

No attempt is made in this province to save the carbonic acid gas which escapes from the kiln. In Europe, the gas is often collected and used for technical purposes.

In Kwangtung lime is used only for mortar and cement mixing, for bleaching and dyeing work, and in glass making.

The Chinese and the Lodge Amendments

By RODNEY GILBERT

China—that is official China—suffered keen disappointment in the failure of the American Senate to pass Senator Lodge's resolutions for amending that part of the Peace Treaty which had to do with Shantung. This failure on the Senate's part dashed China's last hope of getting something for nothing. A certain section of the Chinese consequently regard themselves as betrayed and injured, and those in the Government who have been following events in Washington are discussing the outcome of the long series of Shantung debates as though it were a breach of faith.

This illustrates several characteristic Chinese shortcomings which are as conspicuous in the street coolie as they are in the Government. The Chinese have a keen sense of humor. The observant Cathayan sees a thousand things in the daily life about him that are excruciatingly funny, but never finds anything in himself that is even amusing. He conceives himself the one sedate and dignified figure stalking through a world of burlesque and is deeply offended if anyone presumes to derive amusement from his person or from any situation in which he may be found. If the Chinese were able to conceive of themselves as absurd they would appreciate the humor of their plaint against America and would keep a discreet silence.

Another Chinese trait which the present situation illustrates is that of regarding an expected favor, charity, or privilege as an inalienable right. If you give to the beggar at your gate for several days in succession and then fail to bestow anything upon him on a subsequent occasion, he bears himself as one with a grievance, as a friend to whom you had denied an obligation, or as an employee from whom you withheld his legitimate wages. If you tolerate the impertinences or the liberties of a servant and later reprove him upon a repetition of them, he considers himself insulted, his dignity ruffled. If in your dealings with a merchant you allow yourself to be cheated consistently until you are regarded as an assured source of high profits, and then suddenly show an inclination to insist upon fair prices or to go elsewhere, the aggrieved trader looks upon you as though you were snatching the living out of the mouths of his children.

China is now resentful because the American Government has decided not to go out of its way to restore to this country what she has permitted certain of her own officials to sell to Japan. She is grieved because America, which owes China nothing, has not declared herself ready to overturn with violence the results of the Paris Peace Conference and to champion this country which is working with Japan under a military alliance against her cherished ally. Certain Chinese have the fond regard for America which the average Chinese individual has for the easy-going foreigner who champions him in right and wrong, tolerates his liberties, exacting no penalty for insults and expecting no payment for services. There can be no doubt that in Oriental minds America's part in the war and her renunciation of the spoils were equally soft and quixotic. Her conduct was given lip service, but Germany's policy, while it was successful, inspired real admiration and respect.

The Chinese mendicant blesses the liberal giver with honeyed courtesy and curses the man who kicks him out of the way, with genuine respect. The Chinese official who affects democracy and walks through the streets dealing kindly with his fellows is sneered at by loafers and has his pockets picked, but the magistrate who rides in his chair with stony dignity, while his lictors whip the rabble out of his path, is mentioned in whispers and is overwhelmed with presents and adulatory courtesies.

Japan in her relations with China plays the part of the haughty official, exacting heavy tribute for her attentions and returning arrogance and insult. America extends charities, a strong sentimental support and the democratic "glad hand" and exacts nothing. The result is that while Japan is whole heartedly cursed, she gets Chinese respect and full Chinese attention when she has something to propose; while America is smirked upon as the silly knight errant with bulging pocket, upon whom China has an established right to call whenever her bad bargains get her in such serious straits that she sees no way out.

Whatever one may think of the Shantung clauses in the Peace Treaty—and nearly every foreigner in the Orient is convinced that they are not only criminally unjust to China but contain the seeds of much future trouble—and however keenly we may be disappointed in the rejection of the Lodge resolutions, it would be well if the Chinese could realize that having done little but compromise themselves for the past five years, they have scant ground for charging America or any other of the Allies with a breach of faith if these nations do not go out of their way to bother about what the Chinese themselves have blithely sacrificed.

Important Concession of Mining Rights of Hunan Province signed by Military Governor

Full Text of an Agreement which is being vigorously Protected by Hunanese and Certain Foreigners

Considerable agitation has been caused in Hunan Province, and among Hunanese living in other parts of China, by the recent signature of an agreement which gives to a British subject the right to a blanket concession to develop and work mines throughout the Province, such concession to embrace water rights, building rights, transport and railway rights, and electric and telephone rights. The agreement was signed by the Hunan Industrial Director and the Military Governor, General Chang Chih-yao, and Mr. A. M. G. Grant, a mining engineer of British nationality.

The terms of the agreement are given below and speak for themselves. Mr. Grant, it is alleged, endeavored to interest British Bankers in China to finance the enterprise he has in view but we are informed that the nature of the contract was such that they would have none of it, whereupon it is reported Mr. Grant set sail for America to endeavor to enlist financial support there.

In the meantime the Hunanese have agitated strongly against the contract and those who signed it, charging them with selling the Province and mentioning all kinds of bribes—running into millions—as the compensation paid for the signature of the contract. Numerous representations protesting against the agreement have been made to the Government at Peking, and influential Chinese have wired directly to General Chang Chin-yao condemning him for his action. His defence is that the agreement was signed in the sole interests of the people of Hunan, and that as he is the chief administrator of Hunan it is his business to do everything within his power for the benefit of the Hunanese, without regard to his own personal interests. He says that without foreign cooperation the old prosperity of Hunan cannot be restored and that in signing the agreement he had no intention of discriminating against other foreigners. So far General Chang has remained unmoved by the allegations made against him, and time alone will tell whether the agreement can stand in the face of the hostility of the people, even if it is not effectively protested by other nationals. The agreement is as follows:

Agreement

MEMORANDUM OF AGREEMENT made this. . . . . between WU YAO-KIN, President of the Board of Commerce and Industry for the Province of Hunan, duly appointed by the Central Government of the Republic of China with plenipotentiary powers over and within the limits of the said Province of Hunan in all matters connected with or appertaining to the industrial development of the said Province of Hunan, party of the first part, and hereinafter referred to as the First Party; and ARCHIBALD MORSLEY GEORGE GRANT, Mining Engineer, a British subject, duly registered at His British Majesty's Consulate-General at Hankow, party of the second part, and hereinafter referred to as the Second Party.

Now by these presents be it known that I, the First Party, have observed with regret the backward condition of the commerce and industry of the said Province of Hunan, and have applied for and obtained the full sanction of the Government of the Republic of China through His Excellency Chang Chin-yao, the duly appointed Governor with plenipotentiary powers over and within the said Province of Hunan, and knowing the Second Party to be a person of the highest repute and ability, I, the First Party, in conjunction with His Excellency Chang Chin-yao, the duly appointed Governor of Hunan, have decided to invite the cooperation of the Second Party in developing the commerce and industry of the said Province of Hunan and such development shall commence with the mining industry; for the purpose of encouraging such industry the Second Party is hereby granted a concession for the developing and working of mines throughout the said Province of Hunan under the following terms and conditions:

I.—The mining rights of the entire Province of Hunan are hereby granted to the Second Party with the exception of (1) mines which are already in operation, (2) mines over which agreements have been made by the native mine-owners with foreign companies. In such cases 1-2 it shall be optional to the native mine owners to decide on cooperation with the Second Party or otherwise. Such mining rights as described herein shall include water rights, building rights, transport and railway rights, electric and telephone rights.

II.—No financial responsibility shall rest with the First Party or on the native mine owners; all capital required for the development of mines being furnished by the Second Party or his duly appointed representative while the native mine owners shall contribute their mining properties which shall be valued at fifty per cent. of the capital decided upon by the Second Party's expert for the development of the mine or mines so contributed.

III.—The Head Office of the Second Party shall be in Hankow, with a Branch Office at Changsha, or at any other point in the interior of Hunan at which it may seem expedient to the Second Party from time to time to establish Branch Offices.

IV.—The Second Party shall organise a Parent Company with a nominal capital of One Million Pounds sterling, such capital to be used for the equipment and working of selected mines, in each mine selected by the Second Party's expert, the amount of capital required for the equipment and working of such mine to the profit earning stage shall be decided by the Second Party, the native mine owners contributing their mines either actually or potentially and such contribution shall entitle the said native mine owners to fifty per cent. of the net profits earned by the mine or mines so contributed.

V.—The Second Party shall after the formation of the Parent Company possess the exclusive right to float subsidiary companies at any point or at any time mine or mines within the said Province of Hunan.

VI.—The Parent Company shall be controlled by a Board of Directors, of which Board the Second Party or his Nominee shall be the President. Three Directors shall be appointed by mine owners and three Directors in addition to the Second Party shall be appointed by the shareholders of the Parent Company and in all cases of even voting by such Board of Directors the President shall have the casting vote.

VII.—On each mine working, the accounts shall be kept in both Chinese and English and the mine owners shall have the right to appoint an Auditor from time to time as shall hereafter be mutually agreed upon, but in the event of any dispute arising to such accounts the English Books shall rule, *in toto*.

VIII.—The dividend may be annual or semi-annual as shall be decided upon by the Board of Directors appointed to the mine or mines concerned.

IX.—In the event of lands adjoining mines being required to be purchased or lands other than those used in actual mining operations, the funds necessary for such purchase shall be advanced by the parent or subsidiary company as the case may be, and funds so advanced by the parent or subsidiary company shall be deducted from the fifty per cent. profit due to the original mine owner.

X.—The First Party shall be responsible for the granting and procuring of the necessary permits and for securing the proper title deeds for the parent or subsidiary company and all such title deeds, documents, etc., shall be held by the Second Party or his Nominee as the property of the parent company or subsidiary company as the case may be, so long as a mine or mines are operated, but in the event of the Second Party's expert deciding that a mine or mines can no longer be worked at a profit such mine or mines shall at the discretion of the Second Party's expert be declared abandoned on such declaration of abandonment given in writing and signed by the Second Party or his Nominee, the title deeds, permits, documents, etc., aforesaid shall be handed back to the original mine owner.

XI.—The legal costs for mine permits shall be advanced by the parent company or subsidiary company, as the case may be, on each mine selected by the Second Party's expert, but such costs shall be deducted from the fifty per cent. of the profit due to the original mine owners immediately upon such mine or mines reaching a profit earning stage.

XII.—All mines in the Province of Hunan or areas containing potential mines with the possible exception of those noted in Clause 1 hereof, of whatever nature, auriferous, metaliferous, or otherwise, shall be offered to the Second Party's expert for selection and the said expert shall at his discretion, accept or reject each or any of them.

XIII.—All mines selected shall be worked in accordance with the present existing laws of China but in the event of the change of policy on the part of the Government of the Republic of China or the introduction of new mining laws, such laws, if detrimental to the Second Party or in any way liable to affect either the profits or the smooth working operations of the Second Party shall not affect this agreement or affect any mine or mines in the Province of Hunan, which the Second Party, parent company or subsidiary company, as the case may be, are working on or are desirous of working on in pursuance of this agreement.

XIV.—The mine owners shall be entirely responsible that no disputes arise with the natives or in case of *force majeure* or unavoidable difficulties arising the said mine owner shall be responsible to the Second Party, the parent company, or the subsidiary company, as the case may be, for any loss or damage suffered by the Second Party, parent company or subsidiary company.

XV.—Whereas it is fully understood in the foregoing clause that the mine owners are responsible to the Second Party, parent company or subsidiary company, as the case may be, for any loss or damage, it is hereby agreed that the Second Party will assist the mine owner to maintain smooth working operations to the best of his ability.

XVI.—As a further protection and in addition to the foregoing Clauses 14 and 15 each mine working whether under the jurisdiction of the Second Party, parent company, subsidiary company, or the duly appointed representatives of each or either, shall pay to the Government of the Republic of China through such Governor of the Province of Hunan as shall from time to time be duly appointed by the Central Government of the Republic of China, a royalty of ten per cent. of the net profits earned by each mine working, and such royalty shall insure, free of all charge to the Second Party, parent company, subsidiary company, or duly appointed representative of each or either, the maintenance of an adequate police force either civil or military as shall be deemed expedient or necessary at each mine or mines working if required by the Second Party, parent company, subsidiary company, or duly appointed representatives of each or either, and such police force shall ensure on behalf of the Government adequate protection of all transport of material to and from such mine or mines throughout the province of Hunan whether by road, rail, or waterway.

XVII.—Should it be found at a later stage either before or after the commencement of mining operations of the Second Party that additions to this agreement are necessary to further safeguard the interests of the Second Party, the First Party hereby agrees that such additions may be made and the Second Party hereby agrees that in the event of the First Party desiring to add any clause or clauses which it is decided will be of mutual benefit, such clause or clauses may be added, mutually agreed upon.

XVIII.—The tenure of this concession shall be for fifty years or alternately so long as a selected mine or mines can be worked at a profit. In such latter case the option of such extension shall rest with the Second Party or his Nominee, and this concession shall continue until such time as all mines selected either actually or potentially during the said period of fifty years are declared abandoned by the Second Party's expert, in such cases in accordance with and in the terms of Clause 10 hereof this concession shall cease.

XIX.—Four copies of this agreement shall be made in the English text and four in the Chinese text, the original shall be the property of the Second Party, one copy shall be retained by the First Party and one copy shall be lodged at H. B. M. Consulate, Hankow, one copy with His Excellency the Governor of Hunan; the responsibility for the translation from the English to the Chinese text shall rest with the First Party, and in the event of any dispute arising hereafter as to the meaning of the terms hereof, the English text shall rule.

(Signed) PRESIDENT OF THE BOARD OF COMMERCE AND INDUSTRY OF THE PROVINCE OF HUNAN.

Signed and delivered by HIS EXCELLENCY CHANG CHIN-YAO, Governor of the Province of Hunan.

WINTER TRAVEL IN THE NORTH OF SHANSI PROVINCE, CHINA

The cart covers are often lined with felt to keep out the biting cold. Humans wear sheepskin garments and thick felt boots. (Photo by U. S. Bureau of Foreign and Domestic Commerce.)

Chinese Government Railways in 1918

Results are the Most Favorable in History of the Government Lines

The Ministry of Communications announces the complete and final tabulation of the returns for the year 1918. Since considerable time will be required to print the full report with its many analytical summaries and diagrams, a synopsis of the extensive volume is given to the press in advance. It will be observed that the appearance of these results at this time marks the achievement of a goal toward which the Ministry has been striving for some time—namely, the prompt and regular compilation of railway statistics. It may now be said that these reports are "on time."

Compared with the year before, revenues show an increase of $13,778,000—or over 20 per cent. While expenses show a considerable increase also—$4,282,000. Net revenues were $9,496,000 in advance of the year before or almost 30 per cent. At the same time interest payments and similar items decreased to such an extent that net income debits, showed a decrease of $2,378,000. The final result is that the surplus for the year is $33,505,000. This sum is nearly $11,875,000 more than the same result in 1917—an increase of more than 50 per cent. This comparison is fully as good as it appears, for while there were some depreciated bank notes included in the totals in 1918, the quantity is not so large by half as that in 1917. Among cash and special funds in 1918 these notes amounted to some $6,000,000, while in 1917 these items amounted to fully $12,000,000. In both years, of course, a certain proportion of such notes had been earned in the year previous.

The results upon the individual lines are shown by the following summary which shows revenues, expenses, net revenues, net income debits, and surplus for the year upon each line.

It will be observed that net operating revenues are sufficient to meet all net income debits, such as interest, taxes, rentals, etc., more than four times over. The surplus for the year is equivalent to a 29 per cent. return upon the permanent Government investment in the combined lines.

As the report will point out, these results are abnormally favorable, and the year 1919 should not be expected to show a similar increase over 1918. The reason for this is that the year 1917, with which comparison is made, did not show normal revenues due to floods and other disturbances. In addition considerable traffic which naturally should have moved in 1917 was left over until 1918 and swelled the normal traffic. On top of this, the season of 1918 was unusually favorable. Crops were heavy and there was practically no interruption to the lines. The only exception of importance to this statement was the closing down of the Peking-Suiyuan during the early months of the year as a measure of "plague" prevention.

As would be expected, operating percentage, or ratio, shows a considerable decrease. It stands at 44 compared with 47 in 1917 and 52 in 1915. The present figure is probably the lowest average in any country on the globe. Several lines show much better percentages, but the total is raised because of the unfortunate position of certain lines isolated from fuel supplies or without traffic connections. The individual lines rank as follows:

Peking-Hankow	33.1	Chinese Government Railways...	44.2
Peking-Mukden	33.5	Shanghai-Nanking	61.1
Cheng Tai	41.7	Peking-Suiyuan	65.1
Taokow-Chinghua	44.9	Shanghai-Hangchow-Ningpo ...	86.2
Tientsin-Pukow	50.2	Chuchow-Pinghsiang	89.6
Kaifeng-Honan	55.4	Canton-Kowloon	112.9
Kirin-Changchun	60.5	Changchow-Amoy	187.5

Such an operating percentage naturally leaves large net revenues. The proportion which these bear to the investment in the various lines indicates the wisdom of the investment, provided sufficient time has elapsed to prove inherent possibilities. Unfortunately in several cases, plans for the completion of lines have been held up by unavoidable causes, and the possibilities have not been proven, but for the most part very creditable returns upon the sums invested have been earned. This is reflected in the following summary, in which the per-

SUMMARY 1.

	Revenues (gross)	Expenses	Net Revenues	Net Income Debits	Surplus for the Year
	$	$	$	$	$
1. Peking-Hankow	23,822,621.24	7,977,853.50	15,844,767.74	2,456,899.85	13,387,867.89
				less	
2. Peking-Mukden	20,853,532.26	6,903,148.24	13,950,384.02	*29,216.28*	13,979,600.30
3. Tientsin-Pukow	12,603,359.05	6,334,726.56	6,268,632.49	3,554,116.57	2,714,515.92
4. Shanghai-Nanking	4,863,436.58	2,969,195.92	1,894,240.66	987,041 21	907,199.45
					less
5. Shanghai-Hangchow-Ningpo	2,397,350.59	2,066,830.96	330,519 63	467.907.14	*136,487.51*
6. Peking-Suiyuan	4,394.397.58	2,859,949.12	1,534,448.46	123,542.60	1,410.905.86
7. Cheng Tai	3,210,437.29	1,337,384.15	1,873,053.14	418,034.08	1,455,019.06
8. Taokow-Chinghua	948,917.33	426.453.83	522,463.50	402,069.84	120,393.66
9. Kaifeng-Honan	1,270,205.45	703,622.51	566,582.94	419,351.51	147,231.43
10. Kirin-Changchun	1,776,144.09	1,075,219.57	700,924.52	424.687.12	276,237.40
				less	
11. Chuchow-Pinghsiang	554,392.78	552,598.44	1,794.34	*1,444.21*	3,238.55
			less		less
12. Canton-Kowloon	911,199.00	1,029,082.52	*117,883.52*	477,067.09	*594,950.61*
13. Canton-Samshui. Not reported.					
			less		less
14. Changchow-Amoy	46,159.71	86,549.80	*40,390.09*	125,261.74	*165,651.83*
Chinese Government Railways...	77,652,152.95	34,322,615.12	43,329,537.83	9,824.418.26	33,505,119.57

cent which net operating revenues bears to cost of road and equipment is shown by lines :

SUMMARY 2.

Peking-Mukden	...	22.7	Peking-Suiyuan	...	5.6
Peking-Hankow	...	15.8	Kaifeng-Honan	...	4.2
Kirin-Changchun	...	10.6	Shanghai-Hangchow-Ningpo		1.5
Chengting-Taiyuan	...	8.4	Chuchow-Pinghsiang	...	0.0
Taokow-Chinghua	...	7.1	Canton-Kowloon	...	Deficit
Tientsin-Pukow	...	6.2	Changchow-Amoy	...	"
Shanghai-Nanking	...	6.2	Chinese Government Railways		10.4

These results have been made possible by increased business and improved efficiency. Passengers carried one kilometre increased 9 per cent. and tons hauled one kilometre increased 24 per cent. In 1918, 229 passengers were carried per train compared with 211 during 1917, and in goods service there was a similar increase from 244 to 257 tons per train. Thus the additional passengers were carried with practically no increase in train service, while the 24 per cent. increase in goods traffic resulted in only 17.6 per cent. increase in goods train kilometres. There is a noticeable increase in the average length of haul per ton. The typical ton of goods in 1918 was hauled 184 kilometres compared with 165 in 1917 and 141 in 1915. Rates have remained unchanged.

Very little change was made in the physical property during the year. Two short branches, aggregating 28 kilometres were built. The investment in physical property upon all lines increased some $4,336,000. Seven new locomotives were purchased. The seating capacity of carriages was increased by 1,506 seats—2 per cent. Goods stocks was increased by 21 wagons built and 200 leased on a permanent basis. The performances of all of these units were much larger than in 1917. The Government's equity in the property was increased by $7,664,000 through additions to property and repayment of funded debt through surplus and the increase of permanent Government investment. Mortgage bonds were reduced by $2,550,000.

"Damn the Tael"

The average business man in the Chinese treaty ports, who has to wrestle with the mysteries of currency exchange which are presided over by the foreign bank, where big transactions are concerned, and by the Chinese exchange shop in matters of petty cash, comes to regard the tael as some hypothetical conjuring medium, like the atomic theory, the fourth dimension, the philosopher's stone or the doctrine of the trinity—designed for his special obfuscation.

The tael is a Chinese weight, a sixteenth of a Chinese pound, or catty, which is a third heavier than the English pound. Since there was no silver or gold currency in circulation in China before the coming of Occidentals, the precious metals, when used as mediums of exchange, were handled in the form of bullion and prices were quoted in ounces, or taels as the Portuguese called them, or *liang* as the Chinese themselves say. The use of uncoined metal afforded every opportunity for abuse by the dishonest merchant or the professional money changer. Weight varied from one locality to another, the silver, which was the commonest metallic medium, was subject to alloy and the scales of every shopkeeper could be adjusted so as to give him the benefit of the doubt, whether he was buying or selling. When Mexican dollars and other standard coins began to be introduced into the Chinese coast ports, the Chinese quickly saw the advantage of handling them and quoting in them, and wherever they were available in sufficient quantity, the discussion of silver weights was forgotten and the dollar or some similar coin became the standard.

There are still districts in China to which the dollars have not come in sufficient quantity to warrant the discarding of the old-fashioned scales and testing stones, but in the Treaty Ports one would have to travel far and search carefully to find any merchant but a money changer or a silversmith weighing out bullion. It is only in government offices in foreign firms and in the banks with which these institutions perforce deal that one hears the tael discussed and quoted with familiarity. The banks in the Far East have held to the tael as a theoretical standard of exchange, and while a man may buy and sell on the street for a lifetime in Shanghai without ever seeing Chinese bullion or having to figure out the relation of the dollar to the Chinese ounce, he no sooner enters a customs office or a bank than he meets this ghost of a crude and barbarous system of transfer, and begins to pay substantial tribute to it.

The Chinese Government which still collects taxes and dues over larger areas not yet blessed with other coinage than the copper cash, and in other still larger districts in which the chopped dollar, the yen, the rouble, Spanish dollars and provincial coins of different weights and qualities are in local circulation, has some apology for adhering to the silver weights as the standard, but, to its credit, it took the initiative several years ago in a movement to abolish the tael as the official medium, and, according to report, it is about to revive a campaign with this object in view.

It is said that the President's Financial Commission, which has made several sane but radical suggestions in recent months, now proposes to abolish not only the official "Treasury Tael" but also the Customs or Haikuan tael, and to fix all taxes and duties in dollars. As this suggestion happens to be coincidental with a resolution passed by the Conference of British Chambers of Commerce in Shanghai to abolish the use of "sycee," or bullion, and to encourage the standardization of the dollar and of subsidiary coins, there seems to be some hope at last of knocking a little of the black magic out of the exchange business which is so utterly incomprehensible to 90 per cent. of the European traders in the Orient, who simply do business according to the formula supplied by the banks and seldom presume to understand or "to reason why."

A lead in the direction of discarding the tael has long been given by the Salt Administration, which does all its transactions in dollars and refuses to recognize the tael. "Damn the Tael," was the cryptic rejoinder of Sir Richard Dane, whilom head of the Administration, when asked why the Administration's accounts were not kept in taels.

M. Suvoroff, Director of the Russo-Asiatic Bank at Kuldja, Sinkiang, recently completed a motor car journey to that remote centre from Fengchen, the present terminus of the Peking-Suiyuan railway. M. Suvoroff started out with two Packards and one Ford, among the party being Mr. Taylor, of the Standard Oil Company's Kiukiang office. At Juchen, the junction of the road to Kuldja and Urumchi, the party divided, M. Suvoroff going on to Kuldja and Mr. Taylor returning to Fengchen. The lengthy route was like a table in parts where cars could go the limit, but towards the mountains it began to become increasingly difficult. In one place miles of sand dunes were encountered but were eventually crossed after much trouble. It is noteworthy that the cars did the journey without a tyre puncture, and one had but a temporary break down.

How the Powers Can Assist the Chinese to Abolish Extra-Territoriality

By M. T. Z. TYAU, LL. D., Author of "Treaty Obligations between China and Other States," "China's New Constitution and International Problems," etc., etc.

At the Conference of British Chambers of Commerce held early in November in Shanghai the following important resolution, among others, was passed :—

> "While this Conference sympathises with the desire of the Chinese to see extra-territoriality abolished, and realises the benefits that would accrue through throwing the country open to residence and trade, it considers as essential preliminaries to the surrender of extra-territorial rights the establishment of stable government, a satisfactory code of laws, and satisfactory arrangements for the administration of such laws, and this Conference suggests that efforts should be made to carry into effect the agreement by Great Britain to assist China in reforming her judicial system in pursuance of Article 12 of the Treaty of 1902."

All Chinese and foreign friends who have the welfare of the Republic at heart will no doubt rejoice at the above expression of sentiments. The holding of the trade conference is in itself refreshingly unusual and constitutes a departure which is sure to be adopted by the chambers of commerce of other nationalities. The effects of the Great War on every trade and occupation are universally evident, and the assembling of such a conference can only be interpreted as a wholesale stock-taki g of commercial and other economic relations in China.

That the Chinese desire to be freed from this extra-territorial yoke is only too plain, since their aspirations in this direction have time and again been brought to the notice of the foreign public. In view of the attitude of the above resolution it may not be unprofitable to see how this question has reached the position it now occupies in the domain of international politics.

Origin of Extra-territoriality in China

Popularly speaking, we say that it was the Sino-American treaty of July 3, 1844, which of all treaties between China and foreign states first contained the stipulation for extra-territoriality in favor of foreigners in this country. As a matter of fact, however, this place of honor should have been given to the Britons, for Article 13 of the General Regulations of Trade attached to the supplementary treaty of Hoomun Chai of October 3, 1843, reads as follows :—

> "Whenever a British subject has reason to complain of a Chinese, he must first proceed to the Consulate and state his grievance. The Consul will thereupon inquire into the merits of the case, and do his utmost to arrange it amicably. In like manner, if a Chinese have reason to complain of a British subject, he shall no less listen to his complaint and endeavor to settle it in a friendly manner. . . . If unfortunately any disputes take place of such a nature that the consul cannot arrange them amicably, then he shall request the assistance of a Chinese officer that they may together examine into the merits of the case, and decide it equitably. Regarding the punishment of English criminals, the English Government will enact the laws necessary to attain that end, and the Consul will be empowered to put them in force; and regarding the punishment of Chinese criminals, these will be tried and punished by their own laws," etc.

Since then similar provisions have been incorporated into all of China's treaties until the outbreak of the European War, and since then with one or two exceptions, foreigners guilty of offences or crimes have always been amenable to their own judicial officers.

Japan's first treaty with this country dates from September 13, 1871, and its Articles 8 and 13 constitute the first exception to this rule. These provide that the officials of each state shall try the other's subjects for breaches of the peace. Hence on the outbreak of hostilities between China and Japan in 1894, two Japanese suspected of espionage, were, on the request of the Chinese Government, arrested at Shanghai by the French authorities within whose settlement they had been found. As the United States had charge of Japanese interests in China, they were handed over to the American Consul of that port; against such protection, however, China protested. The Washington Government telegraphed to its consul and ordered their surrender to the Chinese. The premises were acquiesced in by Tokyo, on the ground that under similar circumstances Chinese in Japan would be similarly dealt with by the Japanese authorities. Of course, with the conclusion of the Shimonoseki Peace Treaty terminating the conflict between the two nations, Japan has likewise been accorded the right of consular jurisdiction over its subjects in this country.

The second exception occurs in the special case of Koreans residing on agricultural lands within the mixed residence district on the Chinese side of the Sino-Korean boundary, this being one of the points of settlement of the Sino-Japanese dispute in 1908-1909 over the Chientao boundary question. These "shall submit to the laws of China, and shall be amenable to the jurisdiction of the Chinese local officials," and "all cases, whether civil or criminal, relating to such Korean subjects shall be heard and decided by the Chinese authorities in accordance with the laws of China, and in a just and equitable manner," etc.

At one time it was claimed by the Japanese that the above provision had been nullified by the treaties concluded after the famous Twenty-one Demands, especially relating to the rights of Japanese subjects residing and travelling in South Manchuria. On the other hand, the Chinese Government held that as the above Korean settlers in Chientao were granted leases of the land they occupied on the express understanding that they would acknowledge Chinese jurisdiction, the agreements of 1915 were inapplicable to them. (See the "Manchester Guardian," Chinese Supplement, April 18, 1916). Now as far as legal interpretation goes, Japan's contention appears to be distinctly lacking in cogency, since the later treaties contain no stipulation expressly abrogating the former engagement. In fact, according to the published accounts of the negotiations leading up to the signature of the new agreements —*e.g.*, "China's Official History of the Recent Sino-Japanese Treaties (1915)"—Japan seems to have confirmed the earlier arrangement in return for the grant of consular

jurisdiction in the regions specially dealt with by the treaties of 1915. For example, the paragraph in Article 5 providing that "civil and criminal cases in which the defendants are Japanese shall be tried and adjudicated by the Japanese Consul," is preceded by the following important stipulation :— "The Japanese subjects referred to in the preceding three articles, besides being required to register with the local Authorities passports which they must procure under the existing regulations, *shall also submit to the police laws and ordinances and taxation of China.*"

But to come back to our main point, namely that until the outbreak of the European War the rights of extra-territoriality were invariably included in all of China's treaties with foreign states, with one or two exceptions as above indicated. As far as can be ascertained, since the fateful days of August, 1914, only two new States have entered into conventional relations with this Republic, namely Chile and Switzerland. It was in London, February 18, 1915, that a treaty of commerce was concluded between China and Chile, but among its five articles not a word is said about consular jurisdiction or extra-territoriality. A similar treaty was concluded last year in Tokyo between China and Switzerland, and the model of the Sino-Chilean agreement is said to have been copied therein. Recently, it will be remembered, Poland and the Czecho-Slovaks were also anxious to conclude similar treaties with this country, but as China is unwilling to grant any further rights of extra-territoriality as demanded by the former, the negotiations have proved abortive.

The Foundation for Abolition of Exterritorial Privileges

That is to say—and this is especially instructive—the practice of the former Manchus in the grant of extra-territorial rights is no longer being followed by the new infant Republic. If one were to trace the origin of such a determination, one would assuredly give the place of honor in this connection to the Mackay treaty of September 5, 1902, concluded between this country and Great Britain. Article 12 reads as follows :— "China having expressed a strong desire to reform her judicial system and to bring it into accord with that of Western nations, Great Britain agrees to give every assistance to such reform, and she will also be prepared to relinquish her extra-territorial rights when she is satisfied that the state of Chinese laws, the arrangement for their administration, and other considerations warrant her in so doing."

The United States and Japan soon followed, their agreements of October 8, 1903, closely resembling as well as faithfully reproducing the British promise above quoted. A like engagement was entered into by Portugal in its unratified treaty of 1904, and then the incidence of the Russo-Japanese War prevented further headway by other States in this direction. The Swedish commercial (consolidated) agreement of July 2, 1908, expressed a similar desire, but added "as soon as all other Treaty Powers have agreed to relinquish their extra-territorial rights."

Finally, we have the following provision in the above-quoted Article 5 of the Japanese treaty of May 25, 1915, relating to South Manchuria and Eastern Inner Mongolia :— "When in future, the judicial system in the said region is completely reformed, all civil and criminal cases concerning Japanese subjects shall be tried and adjudicated entirely by Chinese law courts."

This is as far as formal documents lead us up to. The year 1902, however, was not the first opportunity when this country's wishes were publicly recorded. It appears that the very first occasion occurred in March, 1878, when the then Foreign Office in Peking (Tsung-li Yamén) circularised the Chinese Ministers abroad with the instruction that its views be placed before the governments to which they were accredited. The memorandum covered such vexatious questions as transit tax, *likin* tax, extra-territoriality, "most-favored-nation" clause, and the missionary question. The remarks respecting the subject under discussion were not in the nature of a demand for their abolition, but they dealt with a phase of the controversy closely connected with our topic and so may well be reproduced :—

> "By the treaties foreigners in China are not amenable to the jurisdiction of the Chinese authorities—*i.e.*, they are exterritorialized. . . . But foreigners claim much more than this; they interpret the extra-territorial privilege as meaning, not only that Chinese officials are not to control them, but that they may disregard and violate Chinese regulations with impunity. To this we cannot assent. China has not by any treaty given foreigners permission to disregard or violate the laws of China; while residing in China they are as much bound to observe them as Chinese are; what has been conceded in the treaties in this connection is merely that offenders shall be punished by their own national officials in accordance with their own national laws. For example, if Chinese law prohibits Chinese subjects from going through a certain passage, foreigners cannot claim to go through that forbidden passage in virtue of extra-territoriality. If they go through it and thereby break a Chinese law, their own national officials are to punish them in accordance with such laws as provide for analogous cases in their own country. In a word, the true meaning of the extra-territoriality clause is, not that a foreigner is at liberty to break Chinese laws, but that if he offends he shall be punished by his own national officials.
>
> "Again, seeing that China has agreed that these judicial powers shall be exercised by foreign consuls within Chinese territory, foreign governments should on their side take care that none but good and reliable men are appointed to these posts. Several states, however, appoint merchant consuls. Now, in so far as concerns that part of a consul's duty which comprises the reporting and clearing of ships and the shipping and discharging of sailors, China does not object to its being discharged by merchant consuls. But in China a consul's duties comprise judicial functions as well, and the importance of these functions is such as to seem to demand the appointment of *bonâ fide* officials to consular posts. Moreover, where cases requiring joint investigation occur, it is neither convenient nor dignified for a Chinese official to sit on the bench with a merchant consul, who may have been fined for smuggling the day before, or who, in his mercantile capacity, may perhaps be personally interested in the case at issue," etc., etc.

In point of history it is on record that the above interpretation of "the true meaning of extra-territoriality" has been accepted by the various treaty powers. For instance, in Mr. Bayard the American Secretary of State's communication to Colonel Denby, the United States Minister in Peking, in 1885, there was the following specific instruction :—

"In China, . . . foreign powers have an extra-territorial jurisdiction, conferred by treaty. This jurisdiction is in no wise arbitrary but limited by laws, and is not preventive but punitory." And Article 155 of the British 1904 Order in Council empowers the British Minister in China to enact regulations which shall have the force of law, among other things, so as to "secure the observance of any treaty for the time being in force relating to any place or of any native law or custom, whether relating to trade, commerce, revenue, or any other matter."

In regard to the so called merchant consuls the rule is in practice far from being uniform, but in many treaties—e.g., with Peru, 1874; with Brazil, 1881; with Portugal, 1887; with the Netherlands, 1911, and with Chile 1915—it is

expressly stipulated that the consuls must not be merchants or otherwise engaged in trade. (In the latter case it is, however, provided that merchants are not to be appointed as consuls except as honorary consuls, when they will enjoy rights and privileges similar to those enjoyed by honorary consuls of other treaty states). On the other hand, it is always understood that all consuls are entitled to all customary privileges and attributes, however they may have been appointed or whatever their official status. In 1903 the Chefoo consular body attempted to exclude the merchant-consuls from its meetings. The American Consul, Mr. Fowler, reported the matter to his Minister in Peking but was instructed not to support the resolution. This attitude was approved by Washington and the Department of State observed as follows :—

"All governments, however, appoint such officers as their commercial agents, and while these appointments may be at times the subject of abuse, the matter cannot be remedied except by a general agreement among the powers. . . . It would, therefore, seem that the attitude which Mr. Fowler and his colleagues, representing the great commercial powers, would wish to assume towards those consuls engaged in trade or professions and representing powers with minor interests (Holland, Sweden and Austria), is at variance with the accepted principles of international representation. It may be recalled that the Congress of Vienna decided that no question of wealth or political importance of a power gave to its diplomatic representative any right of precedence over his colleagues of the same rank in the diplomatic corps of the capital to which he is accredited."

"Essential Preliminaries" Necessary to Abolition

The British Chambers of Commerce Conference suggests, in their above-quoted resolution, that "as essential preliminaries" to the abolition of extra-territoriality there should be "the establishment of a stable government, a satisfactory code of law, and satisfactory arrangements for the administration of such laws." Whereas the Mackay convention of 1902, already cited, promises that Great Britain "will be prepared to relinquish her extra-territorial rights when she is satisfied that the state of Chinese laws, the arrangement for their administration, and other considerations warrant her in so doing." Comparatively speaking, the former suggestion is an advance on the latter promise, for the simple reason that "and other considerations" may or may not be treated liberally by either the contractors or the other treaty States, the interpretation of which depending upon the nature of the political interests involved. For example, as already indicated, Sweden will also be prepared so to do "as soon as all other treaty powers have agreed to relinquish their extra-territorial rights."

The formula propounded by the British Chambers of Commerce Conference seems more workable, but is still lacking in complete sympathy with the aspirations of the new Republic. The present anomalous form of government, with its inflated soldiery and irresponsible Tuchunate, is admittedly temporary, and the people of this country will be the first to wish fervently for a stable government that can restore as well as enforce peace and order throughout the Republic. And be it also remembered that the advent of such a government will only be accelerated and not retarded by the *gradual abolition of some if not all of these extra-territorial rights*. As long as there is an actual government which does not command the respect or obedience of the bulk of the population, the foreign settlements and concessions will provide a welcome asylum for political refugees who may otherwise be in danger of life as well as property. The position will be very different if the situation were reversed and a handful of malcontents, not genuine patriotic constitutionalist refugees, were to take shelter within such vantage points and therefrom intrigue for the overthrow of properly constituted authority just because they themselves wish to be in power and so enjoy its perquisites, etc.

China's Efforts at Law Reform

Given a stable form of government, the next essential preliminary should rightly be a satisfactory code of laws. Of course, when one says "satisfactory" one is understood to mean from the speaker's point of view—in this case the viewpoint of foreigners. But that of the Chinese themselves should also be taken into serious consideration. For this purpose many patriots in this country will frankly confess that not only foreigners but they themselves will also do their best to keep away from the clutches of Chinese law, since the days of satisfactory laws and satisfactory administration are not yet in being. On the other hand, the Law Revision Bureau (formerly known as the Law Codification Commission) has already existed for over two years. Under the able chairmanship of Dr. Wang Chung-hui, ex-Minister of Justice, and assisted by a staff of experts and competent foreign advisers, including Monsieur G. Padoux, perhaps the greatest living authority on extra-territoriality—he it was who serving in Siam for nine years, has assisted that country to get back its extra-territorial rights over a decade ago—it has kept faithfully to its labors, despite the ups and downs of the body politic. As a result of patient and thorough methods, during which the legal system of most Western nations have been translated and digested, the second revised draft of the criminal code of the Republic was completed and an English edition was published last July and republished in the FAR EASTERN REVIEW, October, 1919. The code is divided into 377 articles and arranged under 49 chapters under the two main divisions of general provisions and specific offences and punishments. To gain an idea of its scope we may go through its chapter headings, as follows :—

(I) GENERAL PROVISIONS.—(1) Application of criminal laws; (2) Explanations; (3) Computation of time; (4) Criminal liability and reduction or remission of punishments; (5) Attempt; (6) Participation in the commission of an offence; (7) Punishments; (8) Recidive; (9) Concurrence of offences; (10) Judicial discretion regarding punishments; (11) Increase or reduction of punishments; (12) Suspension of punishments; (13) Conditional release; (14) Prescription.

(II) SPECIFIC OFFENCES AND PUNISHMENTS.—(1) Offences against the President; (2) Offences against the internal security of the State; (3) Offences against the external security of the State; (4) Offences against friendly relations with foreign states; (5) Malfeasance in office; (6) Offences against the lawful discharge of public functions; (7) Offences relating to elections; (8) Offences against public order; (9) Escape of prisoners; (10) Concealment of offenders and suppression or destruction of evidence of crime; (11) False evidence and false charge; (12) Offences against public safety; (13) Offences relating to false currency; (14) Offences relating to false weights and measures; (15) Offences relating to false documents and seals; (16) Offences against public morality; (17) Offences against the institutions of marriage and family; (18) Offences against religion; (19) Offences against trade; (20) Offences relating to opium; (21) Offences relating to gambling and lotteries; (22) Homicide; (23) Offence of causing bodily harm; (24) Abortion; (25) Abandonment; (26) Offences against personal liberty; (27) Offences against reputation and credit; (28) Offences relating to personal secrets; (29) Theft; (30) Snatching, robbery, and piracy; (31) Misappropriation; (32) Fraud and breach of confidence; (33) Extortion; (34) Receiving property obtained through the commission of an offence; (35) Mischief.

The mere recital of the above may not be intelligible, but even a cursory glance will serve to show that the work has

been well done and exhaustively done. To the foreigner Chinese law has always appeared most fiendish in its cruelty. If so, the following from the chapter of the new code on judicial discretion regarding punishments will be hailed as a welcome innovation :—

"Punishments shall be determined within the prescribed maximum and minimum after due consideration of all the circumstances of the case. Special consideration shall be given to the following :—

(1) The state of mind of the offender.
(2) The cause of the offence.
(3) The motive for the offence.
(4) The provocation for the offence.
(5) Any peculiar circumstance affecting the offender.
(6) The mode of living of the offender.
(7) The past conduct of the offender.
(8) The intelligence of the offender.
(9) The results of the offence.
(10) The conduct of the offender after the commission of the offence.

In addition to the circumstances specified in the last preceding paragraph, the economic condition of the offender shall be given due consideration in determining the amount of fine.

"Punishments may be reduced by reason of extenuating circumstances."

In other words, the new draft aims at making the criminal law as humane as possible and thus approximate as near as possible to the Western standard If a person is adjudged guilty he will be decently punished, not horribly mutilated or dismembered. And the utmost penalty is to be "punished with death, or with imprisonment for life, or with imprisonment for a period of not less than ten years."

Lack of space prevents us from going into further details about this new draft of the criminal code, but enough is indicated to show that the Chinese have more than started on their task of reforming their laws on the model of the Western standards. Of course, to be operative this draft will have to have the sanction of the new parliament when properly convened, but there can be no doubt that except perhaps for a few verbal alterations, it will soon become law. So far only the criminal portion of the laws of the land has been codified; there yet remain the greater portion of the civil, commercial, bankruptcy laws, etc. And it is understood that the latter will require about another five years.

How Foreign Powers Can Help

The final essential preliminary suggested by the British Chambers of Commerce Conference is that there should be "satisfactory arrangements for the administration of such laws." This is perhaps the most difficult part of the programme for legal reform, but given earnestness of purpose, a resolute determination *and especially foreign assistance*, the task is not insuperable. The graduates turned out by the various colleges of law as well as Western returned students will need a long period of apprenticeship as judicial officers, and money especially will be required to push on these as well as other reforms, etc. Here is one way where the foreign powers can help, namely to lend the necessary funds to push forward the new programme, especially to erect sanitary prisons, new detention houses, and court rooms, etc. Then again in the programme for gradual abolition of extra-territoriality there will surely be the enlisting of foreign advisers and jurists who will either sit with the Chinese judges or otherwise assist them in the administration of justice. Given Chinese judges of recognized ability and probity, there will be general satisfaction; but on the whole, especially at the beginning, the presence of foreign assistants will not fail to instil greater confidence among foreigners in China.

That is another way where the foreign powers can help. But greater than these is perhaps the following definite lines of encouragement. To say that China must have as essential preliminaries a stable form of government, a satisfactory code of laws, and satisfactory arrangements for their administration is actually to prescribe a tangible formula for the Chinese people, but the element of perfect sympathy is still absent. For whether or not extra-territoriality is to be abolished, the Chinese people will sooner or later see to it that their government is stable and efficient, that their laws are in harmony with the needs of the modern times, and that the administration of justice shall be clean and respectable, since the present condition of things is inimical to natural growth and development. Unless the foreign powers go one or two steps further, the Chinese will still lack the encouragement so sorely needed to make them spur forward and put forth their best.

The Effect of Encouragement

Take, for example, the question of suppression of opium in China. It was a burning question a decade ago; to-day it is an accomplished fact, except for its revival in the outlying districts in the wake of the past years' disturbances. In 1907, the British Government agreed with Peking that the import of Indian opium would cease in ten years if China herself was to accomplish such suppression within that period. But the agreement also contained the incentive clause—namely, that this decennial probation limit was revisable at the end of three years. Here was an unexpected encouragement, so the Chinese people tackled the problem with deserving enthusiasm and determination. At the end of three years China's success exceeded all sanguine expectations, and in recognition thereof Great Britain agreed, in 1911, that the remaining seven-year period could be further reduced if the Chinese suppression was continued. Encouragement added to encouragement, and success plus success performed wonders, and the British Government finally announced, in 1913, that the importation of Indian opium would forthwith stop altogether.

Thus ended the campaign against the opium traffic, growth and smoking, and thus was demonstrated the potency of helpful incentive and sympathy. *Now why can the same not be applied to this question of abolishing extra-territoriality?* Considering that the people who have punctiliously obeyed the Fifth Commandment all these centuries will yet come into their own, and that their days will be long in the land which the Arbiter of Nations has given them, the foreign powers will have everything to gain by the speediest restoration of normal order and development to this upward striving nation.

Commercial Benefits from Abolition of Exterritoriality

To consent to the surrender of extra-territorial rights is admirable, but this age is no longer one of mere chivalry. It is chivalry superimposed with a considerable grain of self-interest. Consular jurisdiction in China is admittedly a makeshift policy, and the system has long outgrown its usefulness. In fact, the perpetuation of an anomalous system only serves to handicap the foreigners in the development of the enterprises he had originally started out to promote, namely trade and commerce.

Extra-territoriality confines the foreign trader to the treaty ports and certain well demarcated areas but denies him the right of developing new trade with the greater "unopened" parts of the vast country and its undeveloped resources. Whereas the abolition of this regime will at once throw open to him every nook and corner of the Republic. If confined to the treaty ports he is able to develop a creditable volume of international trade and commerce, will he not multiply the same a hundredfold, nay a thousandfold, were the whole country thrown open for his enterprise and resourcefulness?

The British Trade Congress confesses to a realisation of "the benefits that would accrue through throwing the country open to residence and trade," and many other responsible authorities are of the emphatic opinion that there is much more to gain than loss by surrendering the rights of extra-territoriality. If so, bearing in mind the wholesome example of Anglo-Chinese co-operation in the matter of opium suppression, we suggest that the admirable promise to relinquish should be perfected by an even more admirable honor clause or probationary time-limit. As regards the period of probation, it may be put either at five years when the balance of the Chinese code will have been completed, or at most ten years. But in order to perfect the incentive, there should also be the additional saving clause, namely that the time-limit may be curtailed or extended in proportion to China's success or failure in this direction. To be sure the foreign powers need never have to doubt China's good faith in the matter, and the fact that the nation will thereby be tested is sufficient to put the people on their mettle. For China, to quote Sir Robert Hart, "so to speak, would be on its honor, and the whole force of Chinese thought and teaching would then be enlisted in the foreigner's favor through its maxim regarding tenderly treating the stranger from afar. Such a change of principle in the making of treaties would widen and not restrict the field for both merchant and missionary, would do away with irritating privileges and place native and foreigner on the same footing, would remove the sting of humiliation and put the government of China on the same plane as other governments. . . . . Restore jurisdiction (to the Chinese) and the feeling of responsibility to protect as well as the appreciation of (foreign) intercourse will at once move up to a higher plane."

The above was written by the great "I. G." (Inspector General of the Chinese Maritime Customs) twenty years ago, and since then the Chinese have learned much how to appreciate foreign intercourse. If the nation's failure to score a diplomatic victory at the Peace Conference over the Shantung question is still taken to heart so seriously, who will doubt that the Chinese will not do better in vindicating their honor here than in the former matter of opium suppression?

The Question of Foreign Post Office

While suggesting that there should be a probationary time-limit of five or ten years for the abolition of extra-territoriality, we do not mean to suggest that nothing should be done until the arrival of the appointed period. On the contrary, we hold that there are two clearly defined aspects of the problem and the one which is not connected with the judicial half should at once be taken in hand. Popularly speaking, extra-territoriality means the right of foreign offenders to be amenable to their own national officers. In practice, however, the term has been extended to include many other activities, or rather a few other extraneous things have grown up in China under the aegis of such a system. For example, there is the practice for some of the foreign powers to establish their own post-offices in treaty ports as well as in the Capital, Peking, itself. This anomaly is without legal justification, and in none of the conventions is there a provision therefor. As the American Minister, Mr. Conger, put it to his government, when asked for an opinion whether the United States should not also follow the other powers' example in this direction :—

> "They are not established with the consent of China, but in spite of her. . . . . Their establishment materially interferes with and embarrasses the development of the Chinese postal service, and is an interference with Chinese sovereignty. The foreign post-offices are being established principally for political reasons, either in view of their future designs upon the Empire to strengthen their own footing, or because jealous of that of others. . . . . They will not be profitable, and I cannot find any good reason for their establishment by the United States. At Shanghai, where the foreign mail routes centre, they are important, especially in taking charge of and starting the mails homeward, particularly since China is not a member of the International Postal Union."

That was seventeen years ago. Since then China has already been admitted into the Universal Postal Union (March 1, 1914), and so there can be now no valid reason for the further existence of alien post-offices in this country. On the other hand, the presence of such foreign institutions is always a potent source of abuse as well as danger, since according to the startling revelations in the "North-China Daily News" of a year ago, Japanese post-offices especially have been instrumental in the conveyance of opium, morphine and other forbidden drugs into China. This is as it ought not to be; whereas the judicial side of extra-territorial regime may wait for a period of five or ten years, there certainly is no excuse for the continuance of these foreign post-offices. They ought most assuredly to be promptly abolished as well as withdrawn.

Immunity of Foreign Vessels

Moreover, there is much more to the rights of extra-territoriality than mere amenability to one's own national officers. As consular jurisdiction is personal in its nature and not territorial, its extent is far-reaching. Not only does it comprehend the protection of the persons and property of the foreigners, but it also includes on the one hand, their protection when they reside or travel in the interior of China, or even when they enter the service of the territorial sovereign and on the other, the protection of those Chinese who enter into their employment. A consequence of such protection is the implied immunity of their houses or vessels in Chinese waters from search or visitation by the territorial authorities. While this privilege is not an absolute immunity, but only a safeguard, since no asylum can be afforded to persons who violate the ordinary territorial law, it has proved to be complete even in face of measures adopted by the territorial sovereign for his own defence. For example, during the insurrection of 1913, the Chinese government proposed among other things, that the houses and vessels of foreigners should be subject to search, under warrants *viséd* by a consul, should one be in the vicinity, so as to prevent any collusion between aliens and secessionists. The Diplomatic Body, however, declined the suggestion, on the ground that the representations "jeopardised the rights of foreigners as assured by treaty," but agreed that "any case in which a foreigner was accused of complicity with the rebels should be dealt with in accordance with treaty stipulations."

Now in the above instance the secessionists claimed to be fighting against the dictatorial government of President Yuan Shih-kai; so from their point of view it was just as well that the foreigner's right of immunity from search was not so easily given up. On the other hand the position might be reversed, were the circumstances to arise, when this right of asylum might lend itself to grave abuse to the serious jeopardy of the properly constituted authority. If so, it is questionable if this phase of extra-territorial rights will also be entitled to wait for five or ten years before they are to be surrendered to China. As in the case of Japanese post-offices and the smuggling of opium and morphia, etc., so in this right of asylum, the principle at stake is that the institution may at any moment be the object of abuse, and if such abuse reacts against the best interests of self-preservation it is quite competent for the territorial government to demand their prompt abolition and revocation. Such being the case, it will surely not be insisted that this right of asylum shall also wait until the proper judicial rights of extra-territoriality are also relinquished.

Instances of a like nature may be further cited, but enough is adduced to show that the programme of abolishing extra-territoriality ought never to be sudden but gradual, and in this gradual movement the non-strictly judicial portions of the regime should first be surrendered. As already stressed upon, the consent to relinquish is admirable. It only remains to perfect the generous promise by the still more sympathetic insertion of a probationary time-limit and the honor clause. The Powers will decide upon the length of the probationary period, but if it is to be an effective incentive the period must not be unduly protracted. Remember here as elsewhere, he gives twice who gives quickly (*bis dat cito dat.*). The foreign merchants, the foreign governments will have everything to gain by treating the Chinese people generously and with perfect sympathy, and upon the foreign powers' methods of assisting the Chinese to get back their rights of extra-territoriality will be measured the verdict of posterity whether or not they have behaved as Shylock or as the good Samaritan.

Wolfram-Ore Deposits in Siberia

Wolfram-ore deposits were found in 1911-12 at the Nertchinsk mining district in the Province of Transbaikalia, Asiatic Russia, and have been only partly worked, reports Prof. Soutschinsky, who represented the Imperial Academy of Science for a detailed study of the deposits during the short time of his visit there. He was able to classify the deposits as quartz vein, which is found in veins passing through granite rocks.

Deposits of wolfram ore are located at the following places:—

(*a*) In the Bukuka Mountain 100 versts (66 miles) from the station Borzia on the Transbaikal Railroad.

(*b*) Six versts (4 miles) from the station Tchara-Nor, which is situated on the same railroad.

(*c*) Near the village of Oldanda, 60 versts (40 miles) to the eastward of station Borzia.

(*d*) In the Sherlof Mountain, 25 versts (17 miles) from the station Borzia.

Bukuka Mountain is situated at the source of the River Turga and right branch of the River Onona, approximately 100 versts north of station Borzia and 25 versts northeast of the village Komkoy. The ore beds are found in a wild marshy forest on the top of the mountain. Siberian bears are numerous in this region: and it is possible to reach the ore beds only by following the marks on trees at a distance of every five miles made by the mining engineer, D. A. Ziks, at the time of his exploration party in 1912.

Thirty-five excavations and three shafts 25 to 30 feet deep, made at the time of the exploration party, show the character of the layer. The wolframite found here is in quartz veins averaging 15 inches in thickness. The side layers consist of gray granite, quite similar to the deposits found in the Boevka beds in the Ural Mountains.

It is a remarkable fact that the side beds that separate the quartz veins are narrow, a few centimeters in width, and contain granular, porous, smoky quartz which, in turn, contains crystals and grains of feldspar and sometimes molybden glance and scales of lithium mica.

In some places, as, for instance, near shaft No. 2, a lateral vein of wolframite comes in contact with a quite dense, gray, granular rock, consisting of quartz, light mica, and feldspar, with small grains of gray pyrite and black zincblende. This deposit has some resemblance to beresite and appears to be a pheumatolytic difference in granite, as it is also at the Boevka mines. The quartz veins are separated from side rock by beresite edging.

Three shafts, at a distance of 700 feet apart, show accumulations of wolfram in quartz veins. Judging from the excavations made in 1914, the veins seem to be fairly large, sometimes averaging 6 to 7 inches in cross section. Deposits here are much richer than at Boevka in the Ural Mountains, but there is a disadvantage connected with the Bukuka mines, due to the greater distance from the railroad and the consequent difficulty in transportation of ores.

The regular mining of wolframite has never been attempted here, but according to the data given by Mining Engineer D. A. Ziks, 100 poods (3,611 pounds) of veinous ore excavated at one place contained 10 per cent. mineral, and ore excavated from various places in the mountain slopes contained an average of 2 per cent. The ore at the Bukuka mines has one metallurgical advantage over the ore of the Boevka mines, and that is that it contains a much smaller percentage of manganese.

In December, 1915, the mining engineer, B. W. Malisheff, was sent by the Navy Department to inspect the Bukuka mines. Deductions made from ore samples obtained by this engineer show that the claims of D. A. Ziks were exaggerated. Mr. Malisheff estimates there is a reserve of approximately 12,000 pounds of wolframite located in the Bukuka Mountain mines.

These beds are on the former Czar's lands and were discovered in 1911 by the inhabitants of the village Kamkoy, but were claimed by P. M. Tolmacheff, inspector of the Tchita Museum of the Russo-Geographical Society. In 1915 it was sequestered and before the revolution the mining of wolfram for war purposes was on an organized basis, producing 200 pounds monthly.

The deposits near the station of Tchara-Nor on the Transbaikal Railroad were discovered in 1911 and are situated on the lands of the Transbaikal Cossacks, 6 versts (4 miles) west of the station Tchara-Nor. In 1912, D. A. Ziks made several excavations on a small hill, situated in the middle of a plain about 2 versts (1¼ miles) northwest of the village of Tchara-Nor, which show the character of wolframite. The settlement of this village only recently took place, so it is not shown on the map.

Deformed granite of a yellowish color, through which passes a vein of white milk quartz up to 40 inches in thickness, was uncovered on the top of the hill. This vein, however, is entirely free from wolframite and other minerals. It has been found that wolframite appears in quite different quartz—a gray, smoky, porous quartz—and this has been found in a narrow excavation on the western slopes of the hill.

Besides wolfram there are also found in these beds large quantities of scheelite (Ca Wo) in the form of small pyramids of yellowish-white color, with greasy glance in the form of good crystals. During the period of research and investigation no attention was given to the last mineral.

The veins of the gray smoky quartz as a rule do not exceed 14 inches in cross section. According to the data of D. A. Ziks, the average of wolframite taken from 1 cubic sazhene (343 cubic feet) is 8 per cent. and from placer about 1 to 1¼ per cent.

Chemical analysis of wolframite from Tchara-Nor beds performed by Mr. Ziks at the Chemical Laboratory and Mining Institute, Petrograd, shows the following results:

Elements:—WO_3, 76.02 per cent.; FeO, 9.82 per cent.; MnO, 12.95 per cent.; SiO_2, .73 per cent.; CaO, .14 per cent.; S, .01; P_2O_5, .04 per cent.; TiO_2, .29 per cent.; Al_2O_3, .17 per cent. = 100 .17 per cent

In connection with the Tchara-Nora beds, an undesirable metallurgical factor is that the wolframite contains a high percentage of manganese.

Conglomerates of dark-gray color, with very dense cement, are found in the vicinity of Sherlof Mountain, 25 versts (17 miles) northwest of station Borzia. These conglomerates sometimes contain 3-inch pebbles of light granite, black schist, and other rocks. They have much larger extension in the southeastern region, where on the left side of the River Onon-Borzia they form the so-called Altangan ridge. Besides deposits of wolfram mineral there are considerable quantities of the following minerals: Molybden glance, yellow molybden ocher, and arsenic pyrite. Regular mining of wolfram from these deposits was never attempted, although, according to the information of Mr. Ziks, 20,000 pounds of ore, with 68 to 72 per cent. of pure wolfram, has been extracted. In view of the discovery of other mineral besides wolframite and the nearness of the railroad, there is a favorable prospect of desirable results.

The Mining Industry of Indo-China

The Tin and Tungsten Mines of Tonkin

The tin and tungsten mines of Tonkin are situated in the granitic massif of the Pia-Oac, about 10 kilometres west of Nguyen-Binh and 56 kilometres from Cao-Bang. They are reached from Hanoi by rail as far as Dong-Dang, 163 kilometres by automobile or cart from Dong-Dang to Cao-Bang viâ That-Khe (125 kilometres) and by cart or on horseback from Cao-Bang to Thien-Tu'c (56 kilometres) and beyond. The ores follow the same road in an inverse sense and cost of transport to the point of shipment rises from $50 to $60 according to the mine.

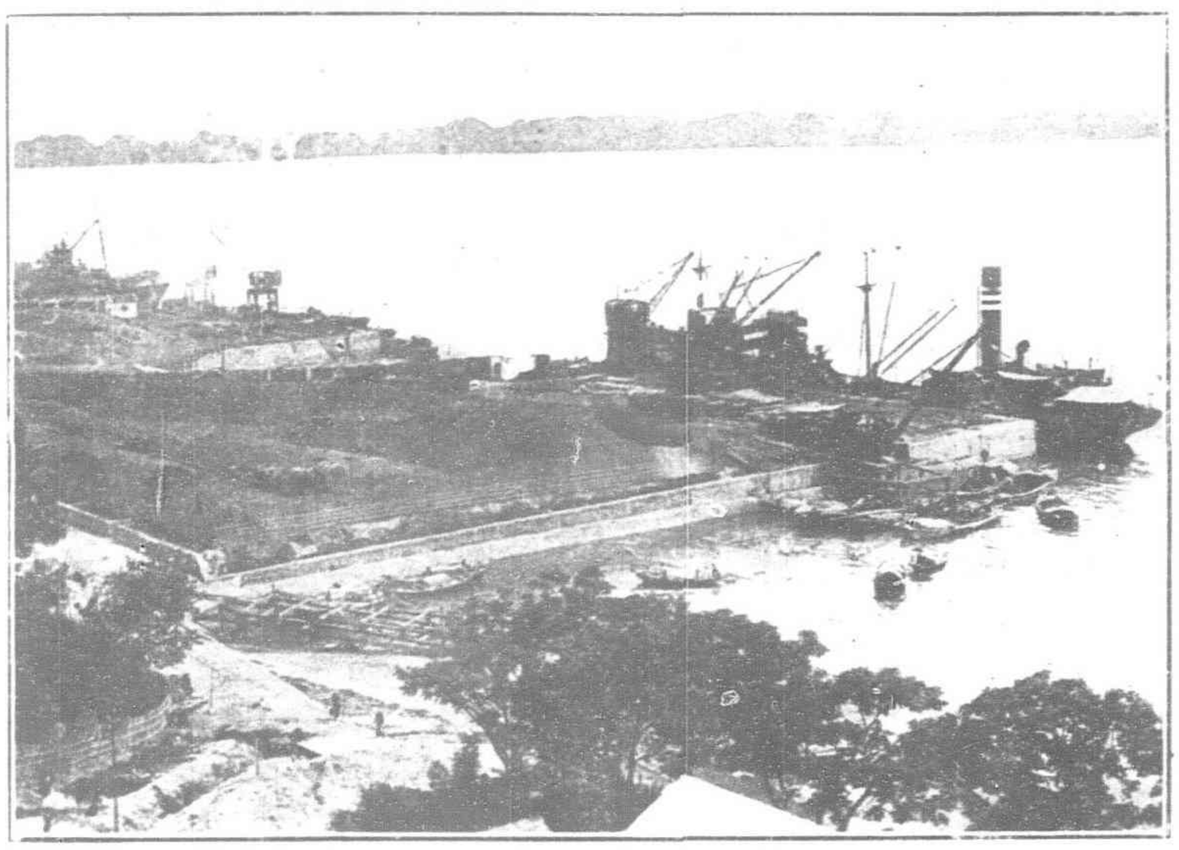


Photo by Edwin W. Mills

HONGAY COAL DOCKS, TONKIN

Prior to the French occupation the stannic earths of the Thien-Tu'c valley were the scene of active Chinese workings. The veins of wolfram and tin ore have been equally exploited; the Chinese abandoned the wolfram (which the French exploiters have since carefully regained from the waste heaps of the ancient workings) and gathered only the tin. Work on the veins at this time was only slightly developed, owing to the hardness of the rock and the small proportion of tin ore as compared with wolfram. In addition the cassiterite in veins containing a certain quantity of wolfram was difficult of treatment. To-day even, in spite of the perfect separation of the two metals, it is difficult with the ores from the veins to obtain a tin containing 98 or 98.5 per cent. of the metal, when alluvial ores furnish a metal containing as high as 99.5 per cent. tin fine.

The massif of the Pia-Oac, 1,930 metres high, consists of a residue of granular substance piercing the old schists which are transformed into lenticular formations in the neighborhood of contact. The thickest veins are to be found in them. The wolfram is found sometimes in important masses, sometimes invisible to the naked eye. In the granulite thoroughly characteristic veins have a varying available thickness of .10 metres to .30 and are sometimes numerous enough to form a veritable stockwerks.

The alluvions occur in all their forms: as rubble torn from the slopes, more or less in the neighborhood of the deposit, or as alluvial deposits, properly so-called, in which the materials torn from the veins have been mechanically prepared in the course of their transportation by the running water before depositing them in pre-existant basins.

The most important of these different deposits are:—The veins in the lenticular formations of the concession of Saint-Alexandre, on the northwest sides of the Pia-Oac, the stockwerks in the granulite of the Robert and Andree concessions on the south and southeastern sides, the properly called alluvial deposits of the basin of Thien-Tuc, at the foot of the north side, and that torn from the slopes, worked on the Beau-Site, Ariane and Phedre concessions.

Venous Deposits

Saint-Alexandre Concession:—The "Etains et Wolfram du Tonkin" (limited liability company with a capital of Fr. 3,500,000) works about a score of veins. The works extend from hill 1200 to hill 1800 and are most important between hills 1200 and 1450. The workshops are served by means of wagon roads between hills 1180 and 1420.

The most important vein by reason of its average production (.50 metres), its continuity (it has been reconnoitred for more than 600 metres in direction and to a height of more than 100 metres) and by the richness of its contents is the Saint-Alexandre vein.

On leaving the mine the ores are submitted to a careful sorting.—the pieces mixed with gangue are sent to the mechanical washing, the pure pieces and the small after washing at the sluice and being crushed are sent to the electro-magnetic separator installed at Thien-T'uc. The residues from the washing and crushing are also sent to the mechanical washing installation

The washing installation consists of a crusher, two grinders, three troughs, three tables, etc. This is able to handle 3 tons of quartz per hour and absorbs 25 to 30 H.P. which is furnished by a small hydro-electric plant.

The electro-magnetic separation has passed through it the whole production of the mine, and it extracts 70 per cent. of wolfram containing 70/75 per cent. of tungsten anhydride and 30 per cent. of tin derivatives containing 30 per cent of tin.

Production.—The production, which has been continuously augmented since the commencement of the working, was, in 1916, 245 tons. The production will be increased in the very near future by the installation of mechanical drilling, for which the necessary power will be supplied by the hydro-electric plant at Ta-Sa.

Personnel and Labor:—The Saint-Alexandre mine employs 11 Europeans and a thousand natives (600 Chinese and 400 Annamites).

Robert Concession:—On this concession are worked the stockwerks and the surface earth in the neighborhood of the same. One of these stockwerks has been decape for more than 100 metres and presents for a total length of 25 metres a thickness of mineral quartz of more than 250 metres. This has been the object for some months of an open-air working on the superficial disintegrated part. The surface earths, very rich in minerals in places, afford, during the rainy season, very fruitful working.

The production of this mine was, in 1916, 50 tons of mixed ore, yielding 20 per cent. to 30 per cent. of tin and 35 to 40

per cent. of tungsten anhydride. There are Europeans and 200 Chinese Annamites in the proportion of 1 to 20.

The use of mechanical drilling is being considered; it is necessary.

Alluvial Deposits

The Beau-Site Concession :—This concession is worked by the Societe des Mines d'Etain du Haut Tonkin (limited liability company with a capital of Frs. 375,000) who work alluvial deposits of different natures according to the altitude at which they are situated.

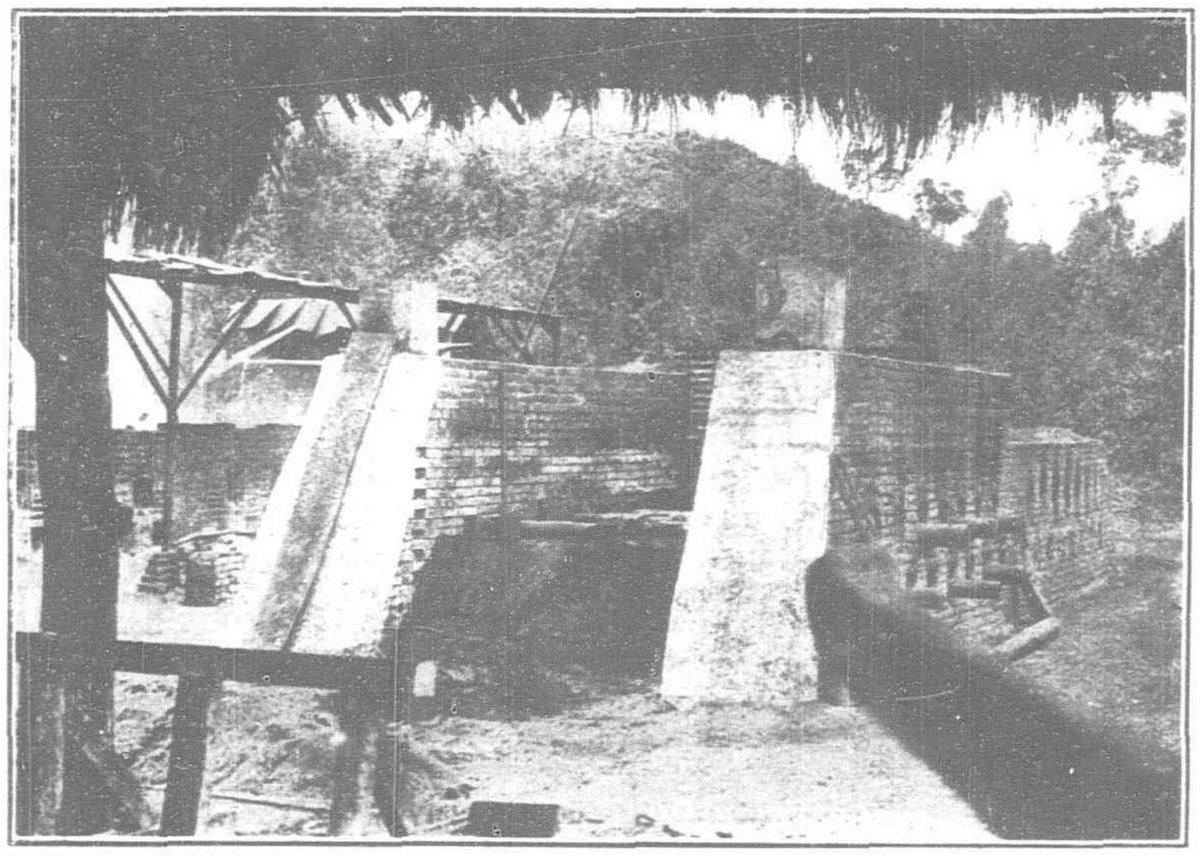


Photo: Edwin W. Mills

COKE OVEN AT HONGAY

The deposits called "Du Bas" situated in lower parts of the ravines are made up of heaps of rubble formed at the foot of the crystalline massif in the depression existing at the contact of the granulite and the schists. The rubble is composed of large lumps of granulite embedded in a mass of sandy clay produced by the decomposition and carrying down of the granulites situated up river. This has produced in these masses a certain enrichment.

The method of working these deposits consists of disintegrating and carrying away by means of water currents this sandy-clayey mass which is then cleansed, at the foot of the works, by a vigorous raking and is then treated in the sluice. The only difficulty of this form of working is the carrying of large blocks of granulite which are transported.

The workings named "du Haut" are constituted, sometimes of the rubble situated at the commencement of the ravines, and of which the constitution is similar to that in the lower part of the ravines, save that the proportion of sandy-clayey earths not having been submitted to any appreciable transportation by the stream, providing for the disintegration on the spot of the granitic rock penetrated by small veins of mineral bearing quarts.

Labor :—The works called "du Bas," in which the removal of sterile material, which has to be done methodically, is the principal work, employ Annamite laborers working by the day. The works "du Haut" engage Chinese coolies on piece-work and for washed ore they are paid 20 to 40 cents per kilogramme as the case may be.

The Beau-Site mine employs three Europeans, 200 Chinese and 100 Annamites.

The production in 1916 was 90 tons of mixed ore containing 30 to 35 per cent. of tungsten anhydride and 25 to 30 per cent. of tin.

The Sainte-Adele Mine

The Societe des Etains et Wolfram du Tonkin will shortly put under regular exploitation the deposits in the concession of Sainte-Adele which occupies the valley of Thien-T'uc. This valley running east and west has been filled by an alluvial deposit consisting of blocks of old dimensions torn from the flank of the Pia-Oac and embedded in a mass sometimes sandy and sometimes clayey.

Investigations by means of numerous shafts shows the alluvion to have a workable depth at the edges of the basin of a score of metres, and in the centre 50 metres, though bed-rock has never been reached. The volume of alluvial deposit to be treated is estimated at 10,000,000 cu. m. Its richness which increases with depth shows at 25 metres an average of 3 kilogrammes to the cubic metre and at certain places 30 kilogrammes to the cubic metre have been found.

The ore is cassiterite containing 4 to 5 per cent. of wolfram.

The exploiter reckons on attacking in the near future two places served by inclined planes and electric windlasses which will raise the alluvion to the level of a rolling way set in the limestone of the southern flank, by which trollies drawn by locomotives will take the earth to the washing stations. The sterile matter which consists of all the elements larger than 20 m.m. will be sent to outfalls established at a point in the valley where the alluvion has already been recognized as poor. Later they will be thrown back into the empty spaces made in the course of working, at points where bed rock has been reached.

The washing installation will consist of four sections reputed to be capable of handling 250 cubic metres of alluvion in 24 hours. Two of these sections are actually under construction.

The metals are smelted on the spot. The employment of electrical furnaces is contemplated, but at present preliminary essays are being made of treatment in Chinese furnaces made by a truncated cone reversed, about 1.20 metres high and of about 50 centimetres in diameter, made of beaten earth. The power necessary for the installations which have just been described (washing, locomotives, windlasses, pumps, electro-magnetic separators, lighting for the workyards and shops) will be supplied from the hydro-electric station at Ta-Sa which will also furnish power to the Saint Alexandre mine.

The Ta-Sa Hydro-electric Plant :—This has been constructed at kilometre 34 on the road from Cao-Bang to Nguyen-Binh, 25 kilometres by road and 20 kilometres by the power transport track, from the Saint Alexandre mine. It makes use of, under a fall of 62 metres, the delivery of the Nguyen-Binh river, which amounts to from 1,500 to 2,000 litres per second during the dry season, corresponding to a minimum of 1,000 H.P.

A dam of reinforced concrete, four metres high, on which is the bridge for the new road from Cao-Bang to Nguyen-Binh, retains the water and directs it into a canal 1,500 metres long, constructed partly of reinforced concrete and partly in masonry. For a distance of 100 metres the canal travels through a tunnel. The conduit reinforced with sheet iron is 125 metres long with an interior of 650 m.m. A second conduit is anticipated.

The plant consists of five groups of turbo-alternators of 250 H.P. Two groups have already been set in place, and a third will be installed in the near future.

The alternators supply a tri-phase current of 50 periods under a voltage of 440 volts. Transformers on the spot will raise the voltage to 10,000 volts and on arrival at Thien-T'uc and Saint Alexandre the current will be reduced to 110 in transforming stations. The mains, of aluminium, are supported by posts of reinforced concrete 10 metres above the

ground placed 100 metres apart. The first portion of the programme of works of the Societe des Etains et Wolfram only require the use of 500 H.P., of which 200 H.P. is for working the alluvial deposit of Sainte-Adele, and 200 H.P. for working the veins at Saint Alexandre. The losses *en route* amount to 50 H.P.

Various Other Deposits

We cannot terminate the article on the mineral richness of Tonkin without saying something of the other minerals of which deposits have been discovered. We shall only deal with the chief of those which have been the object of some prospecting work.

LEAD.—Most of the zinc mines which we have described in the preceding pages contain lead ores, more or less argentiferous, and supplying sooner or later a certain production of this metal. In addition to these, lead has been discovered, most often associated with blende or iron pyrites, in forty deposits at least, in the neighborhood of which there are to be found heaps of scoriæ of varying importance.

The old mines, the most important and most known, by reason of the work which has been done on them of recent years, are those of the region of Ngan-So'n. This region extends for a radius of 5 kilometres, around the station of Ngan-So'n. It is made up of a complex mixture of crystalline limestones and old schists affected by numerous fractures which have been marked by numerous Chinese works. The considerable masses of scoriæ notably in the region of Ngan-So'n bear witness to the importance of the ancient workings. This mine, however, is written of in the annals of the Court of Hue as being the most important silver mine in Tonkin. An attempt to recommence exploitation, undertaken in 1889, failed by reason of the insecurity prevailing in the district and the difficulty of transport. Since 1910, new prospectings have resulted in interesting discoveries.

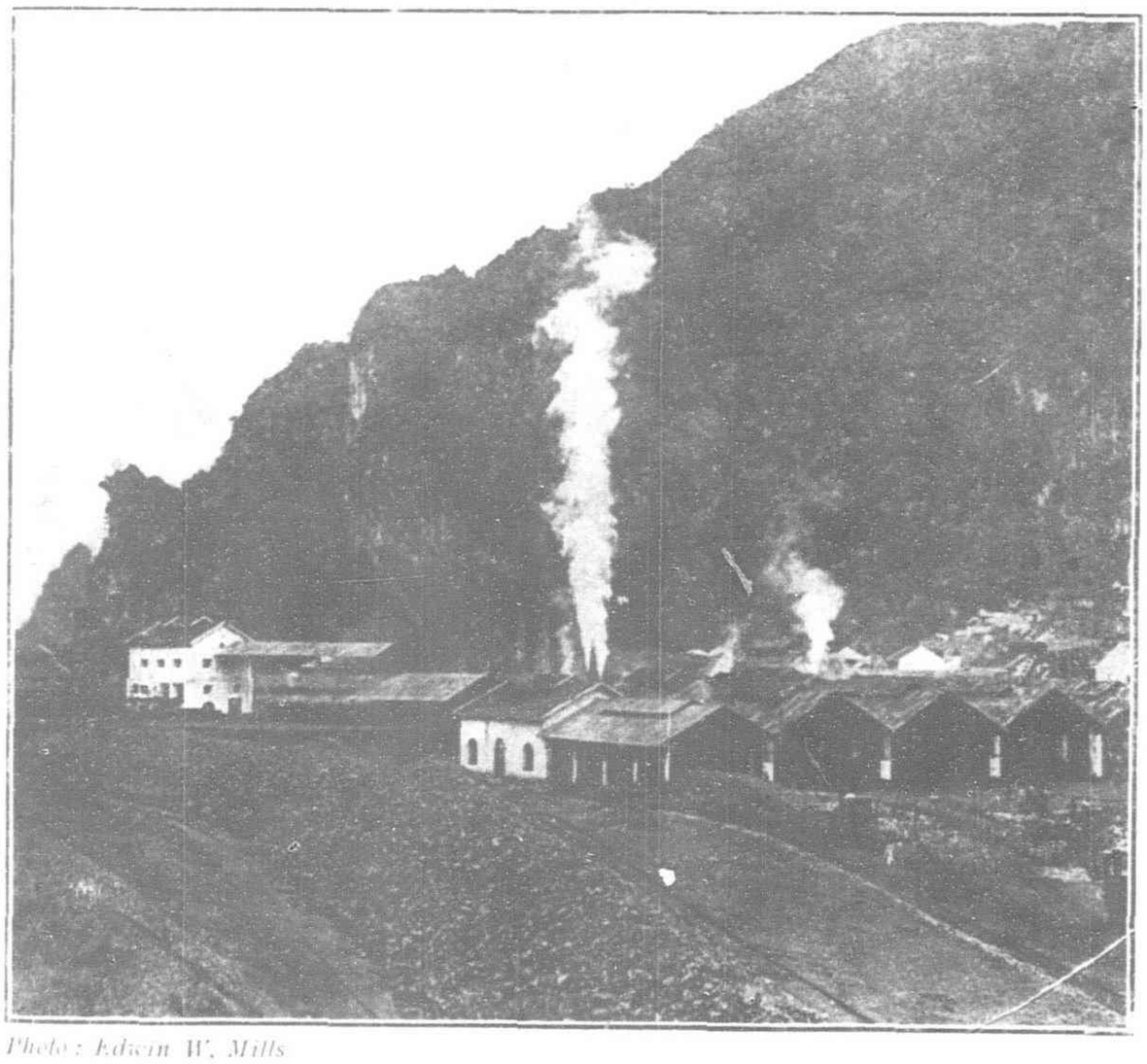


Photo: Edwin W. Mills

HONGAY COAL BRIQUETTE PLANT, TONKIN

The mineralization, remarkable for its high content of silver, is composed of blende, galena, calamine, iron pyrites, chalcopyrites, etc. In the old workings blende appears perhaps more frequently than galena, because the latter was most carefully extracted, whilst the blende, although very argentiferous (3 kilogrammes to the ton of zinc) was abandoned.

At the station of Ngan-So'n there has been found a group of six veins and in the most known of these the mineralization takes the lenticular form in large dimensions.

In the environs of Phuc-So'n, 3 kilom. south of Ngan-So'n there are found the Nayou vein (blende, calamine and galena) that of the Comet (blende) into which the old workers cut a gallery more than 100 metres long, and in the Vieux-Phuc-So'n, many other mineral veins chiefly of blende.

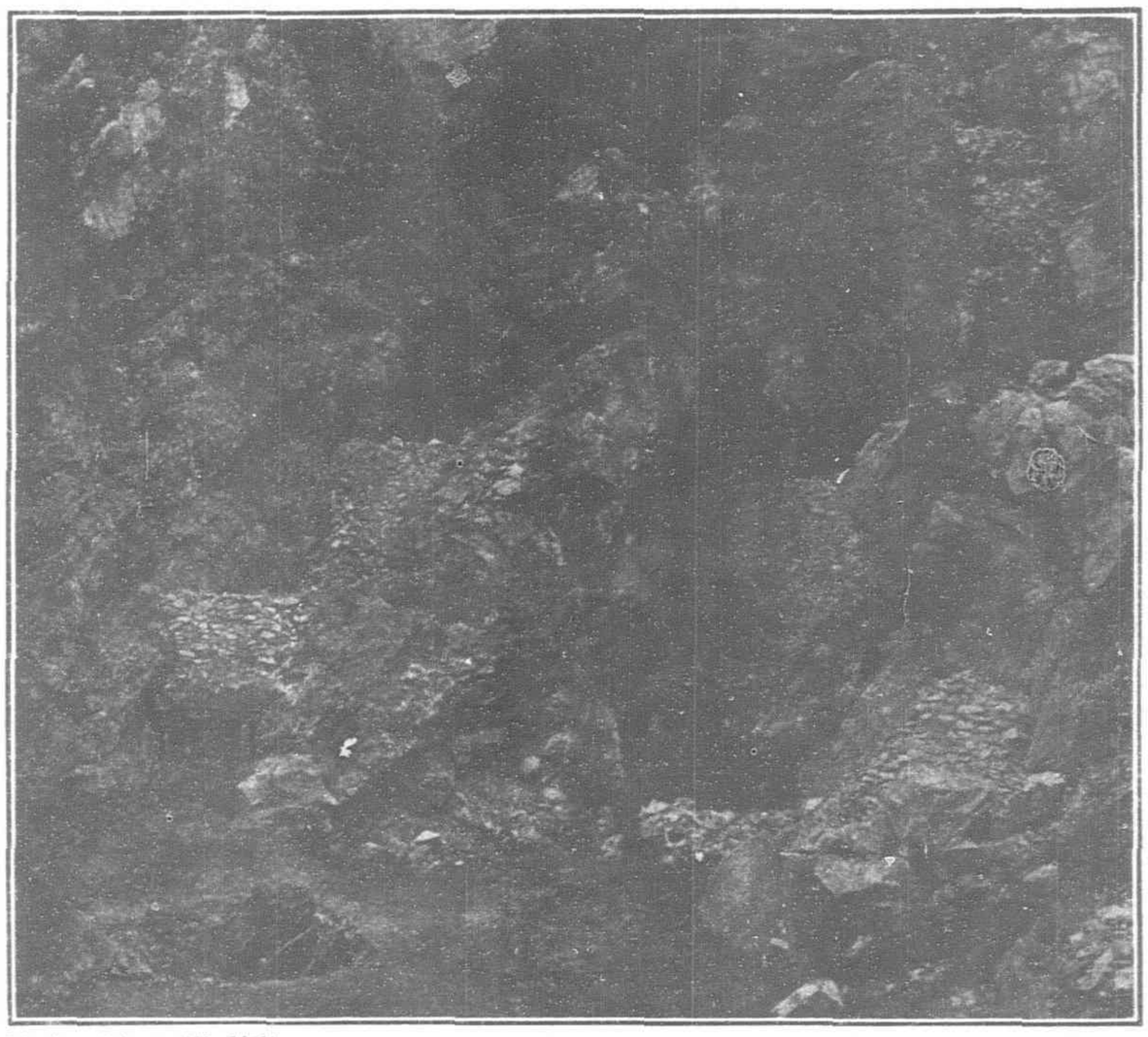


Photo: Edwin W. Mills

CHO-DIEN ZINC MINE, TONKIN

In the northeast 2.50 kilom. from Ngan-So'n the deposit of Nien-So'n shows many veins. One of them, which is found at the contact of the schists and limestone, shows a lenticular mineralization of galena, blende and iron pyrites. Finally, at the spot about 3 kilom. west of Ngan-So'n there has been discovered in the schists a bundle of parallel veins of galena and iron pyrites.

There still remains :—

The deposits of Tim-Kong, Babo and Potay in the massif of Mau-So'n—about 8 kilom. east of Lang-So'n, which show in their veins a mineralization of galena and calcium pyrites.

The deposit of Sang-Kha, on the road from Chu to An-Chou, 15 kilom. from the last named locality, where galena associated with blende and bournonite, in quartz veins cutting into treassic sandstone.

The deposit "des Pins," 4 kilom. east of stopping place of this name on the railway from Hanoi to Langsou, made up of a vein of galena and a gangue of baryta.

Finally the deposit of Tong-Phai, 15 kilom. northeast of Ha-giang, which shows two galleries formerly dug by the Chinese at the contact of schist and quartzite containing lead, zinc and iron.

COPPER.—We are limited here to the deposits of Van-Sai, Da-Chong, on the Black River, and those of Lang-Nhom in the valley of the Red River.

The Van-Sai deposits, situated on the right bank of the Black River, about 20 kilom. upstream from Van-Yen, shows in the faults of overlapping affecting the schists and the laminated green rocks, a mineralization in a disconnected lenticular form of malachite and phillipsite, with a gangue of calcite and siderose.

At Da-Chong is found veins of phillipsite with a gangue of quartz in the amphibological rocks.

The deposits of Lang-Nhom, 15 kilom. as the crow flies west-southwest of Trai-Hut, shows at the contact of the

metamorphosed limestones and schists, ferruginous earths, rich in malachite and azurite.

In addition to these deposits, copper has been discovered in Tonkin giving indications of this mineral at many points.

IRON.—Iron is abundant in Tonkin, but the deposits known up to the present have only been worked by the natives in a manner insufficient to enable their importance to be judged. For some months, however, prospecting work has been undertaken in the immediate vicinity of Thai-Nguyen (Molenham-Monaluong-Cuvan, etc.) which appear to consist of a mass rich in quartzites subordinated to crystalline schists, which yield ores (hoematite and magnetite) very rich and of great purity.

Similar ores are found at Ba-Xat, near Laokay, Phac-Ninh, 15 kilom. north of Tuyen-Quang and Lo-Tranh, 2 kilom. from the stopping place at kilometre 113 of the railway from Hanoi to Langsou. From an inspection of their outcroppings these deposits appear to have a very real importance.

The iron ores of Tonkin, by their purity and by the situation of their deposits, and the proximity of coal deserve to attract the attention of manufacturers

ANTIMONY, GOLD, MERCURY AND PHOSPHATE OF LIME

The deposits of antimonial ores have recently been worked on a small scale in the region of Moncay and to the north of Hongay. These deposits are often found in the form of blocks of all dimensions of the sulphide and oxide of antimony in the surface earths and do not appear to have any continuous depths. Veins in the quartz gangue have also been somewhat worked.

GOLD:—No vein of gold quartz, having any continuity or a regular gold content has as yet been known in Tonkin, but in the region of Pac-Boc, to the south of Cao-Bang, quartzes showing visible gold in notable quantities, but appearing in lenticular formations without extension have been found.

On the contrary alluvial deposits of gold, formerly worked by the natives, are frequent. They are found in three different forms:—

(1) Alluvial deposits, actually in rivers, the Song-Bac-Giang at Yen-Lac; the Song-Luc-nam at Coc-Tram, the Trang-Xa river at Trung-Xa carrying gold in a notable quantity.

(2) Old alluvial deposits forming the bottoms of certain valleys. To this category appear to belong the deposits of Molu and Muong-Bu in the So'n-la provinces.

(3) Ancient Terraces:—Those of the river Claire at Phu-Dvan, of the Red River at Yen-Bay and So'n-tay, of the Song-ki-kong upstream from Lang-Son.

No serious study of these deposits has ever been made.

MERCURY.—Cinnabar deposits, consisting of small veins in the limestone, have been recently discovered in the region situated to the north and northwest of Ha-giang. These have supplied some good samples, but the works are still too small to permit of a safe judgment being formed of the exploitability of the deposits.

PHOSPHATES OF LIME.—There exists at many points in Tonkin, notably in the provinces of Quang-yen (in the bay of Ha-long) in Thai-Nguyen and at Lang-So'n small deposits of phosphate of lime made up of masses of phosphorites and pockets of phosphorated earth amongst the limestone. Some of these deposits appear to have but a small possibility of extension, but they present, however, being large in number, a real subject of interest. Burnt and reduced to powder, they are used to great advantage as an enricher in acid earths.

Finally mention must be made of the graphitic deposits in the basin of the Red River, some outcroppings of asbestos, notably at Cao-Bang and Lao-Kay and, lastly, bituminous limestone and schists at Yen-Bay and Port Courbet.

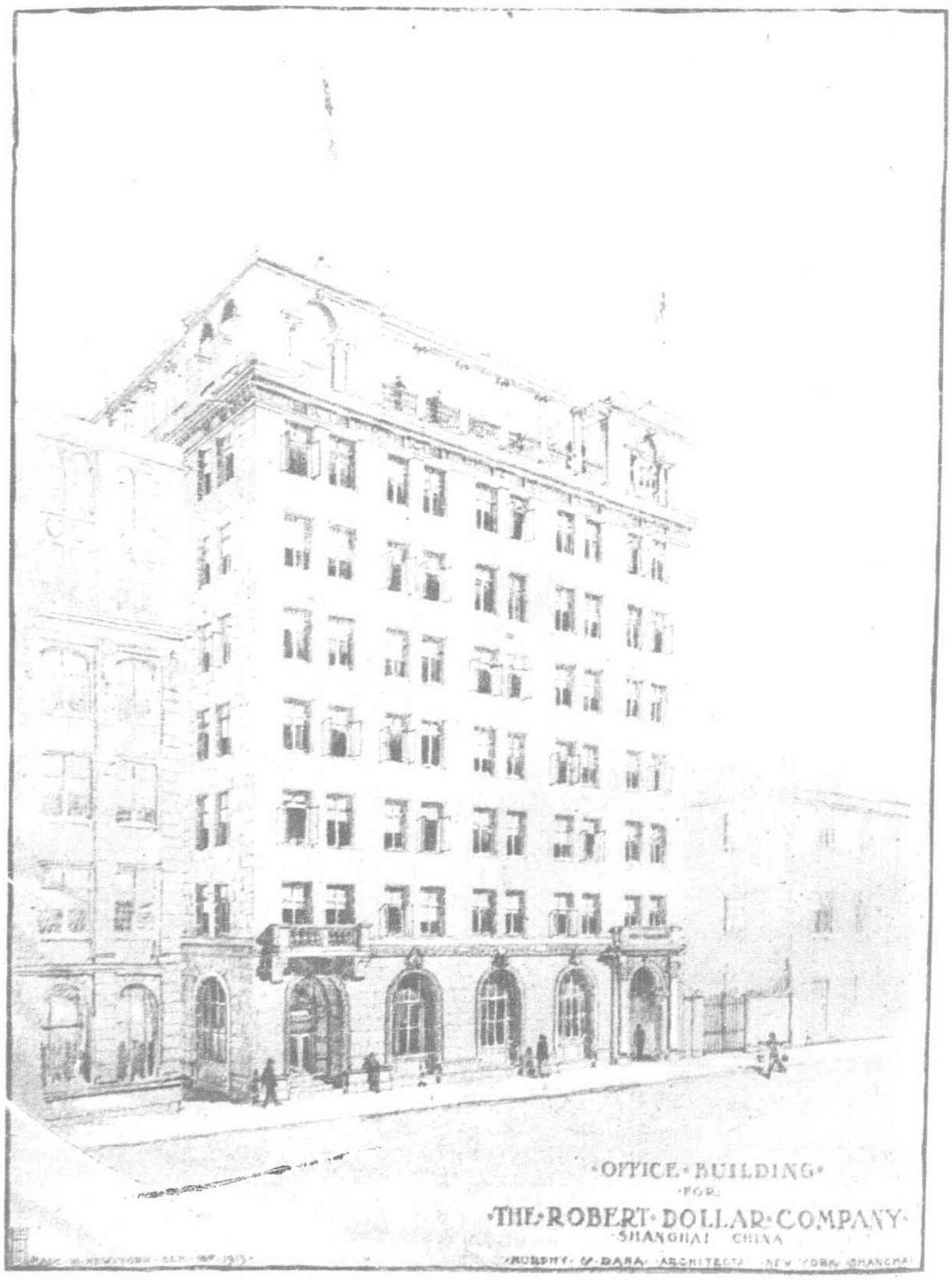
New Dollar Building

Plans are being prepared for a seven-story office building for the Robert Dollar Company, which will be erected at Shanghai on Canton Road, near the Bund. The building will be 84 by 100-ft., and on the Canton Road side will be faced with granite from grade to roof. The plans of the building are practically completed, but no contracts have been let Construction will probably begin about January 15, 1920.

The construction will be skeleton steel frame with reinforced concrete floor arches and composition flooring. The entrance halls will be of marble with marble mosaic floors. If possible, the interior trim will be of hollow metal. Freight and passenger elevators, steam heating, modern plumbing and sanitation, sprinkler system, postal chutes, and all the latest fire-resisting devices will be provided. Metal casements are being provided throughout.

Special arrangements have been made for fire towers, so that in the event of a fire the staircases can be entirely shut off from the rest of the building.

An innovation for Shanghai will be the proposed plan of the owners to rent floor space at rates quoted by the square foot, leaving the matter of walls and partitions in the hands of the tenant. In this way the tenant can construct divisions according to his needs, rather than be forced to fit his needs to arbitrary walls and divisions provided by the architect. Modern office buildings in the United States are now rented almost exclusively on this basis, to the satisfaction of all concerned.



The Robert Dollar Company will occupy the two top floors of the building, while a director's room and rest rooms for their foreign staff will be provided on the roof. This will leave available for rental a large amount of high-grade office and showroom space, which will tend to largely relieve the present shortage of offices in Shanghai.

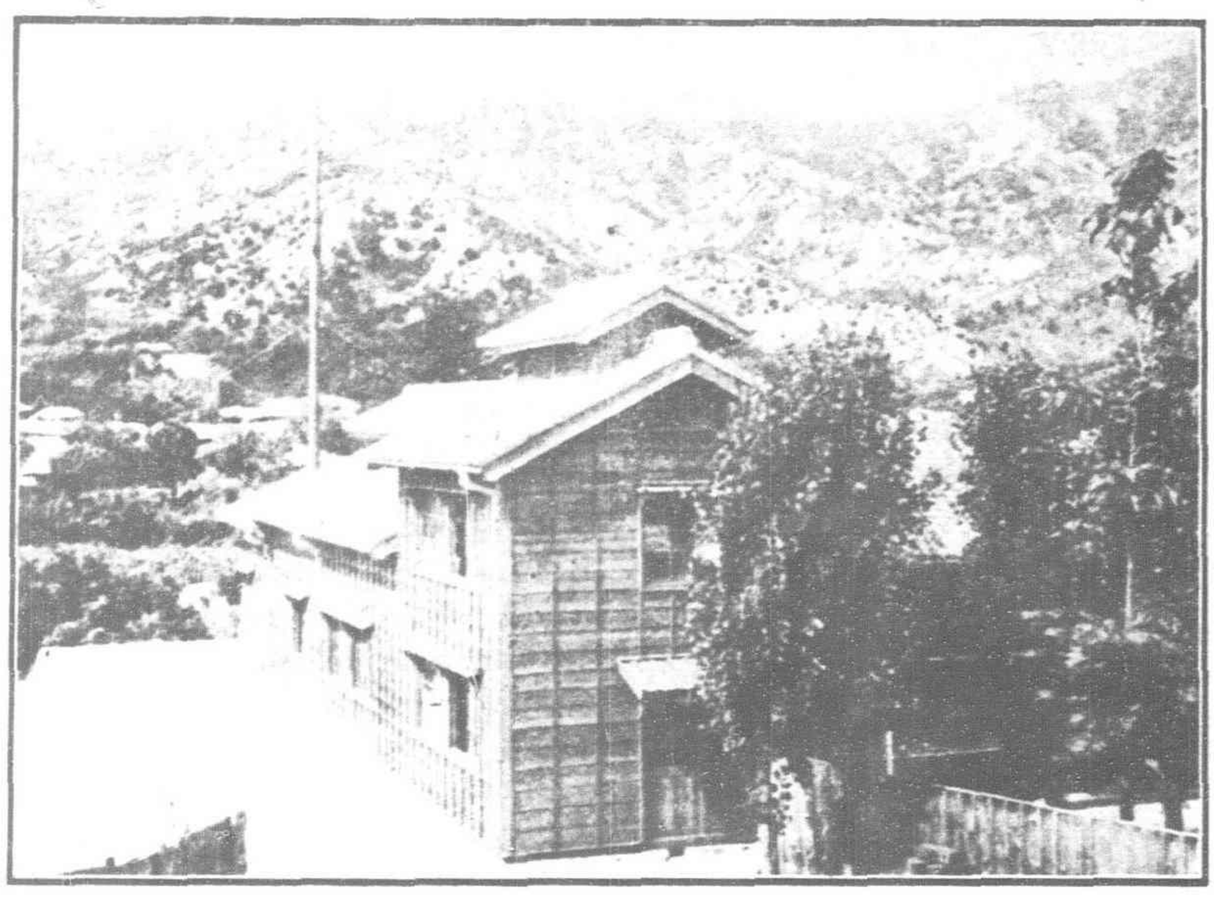
What Japan Has Done Economically for Korea

BY K. K. KAWAKAMI, Author of "Japan and World Peace"

Admitting that the Japanese administration in Korea has blundered badly in handling the independence uprising there, it would nevertheless be unfair to ignore and forget the commendable work which Japan has done for the common benefit of the native population. A review of Japanese achievements in Korea at this particular moment is, therefore, not only seasonable, but in consonance with the dictates of fair play.

The first thing that engages our attention is the measure adopted by the Japanese for the advancement of agriculture in favor of the natives of Korea. The Japanese administration has established agricultural and industrial banks and subsidized the so-called "local monetary circulation associations." These banks advance funds for the cultivation, drainage and improvement of land, the construction and improvement of roads; forestry undertakings; the purchase of seeds, plants, manure, or other materials for farming and manufacturing; the purchase of agricultural and industrial implements; the construction of buildings for agricultural or manufacturing purposes; and various other purposes of a similar nature. While these banks are essentially private organizations, the government rendered them substantial assistance by subscribing for their shares to the extent of Y.335,960, and by loaning a sum of Y.1,058,680 without interest. Where agricultural and industrial banks have not yet come into existence, the deficiency has been supplied by the organization of "Local Monetary Circulation Associations," facilitating the circulation of money among small farmers, each association being subsidized by the government to the extent of Y.10,000.

Along with the establishment of banking facilities for farmers, various other measures were adopted for the advancement of agriculture. Korea was once Japan's teacher in sericulture, but now the progressive islanders are returning courtesy by imparting to the now backward peninsular people the improved method of that industry. At the instance of the Japanese Administration the Women's Sericulture Training Association was organized at Yongsan, which has been followed by many another in various parts of the country. To each of these associations the Korean government granted an annual subsidy, gave silkworm eggs of the best quality, as well as mulberry trees imported from Japan, and in some instances furnished silk spinning machines or wheels. The government also despatched experts in sericulture, both Japanese and Korean, to different parts of the country to give the people instruction in the industry.



KEIJO TRAINING STATION FOR SERICULTURE SUPPORTED BY IMPERIAL DONATION FUND, COCOON STEAM DRYING HOUSE

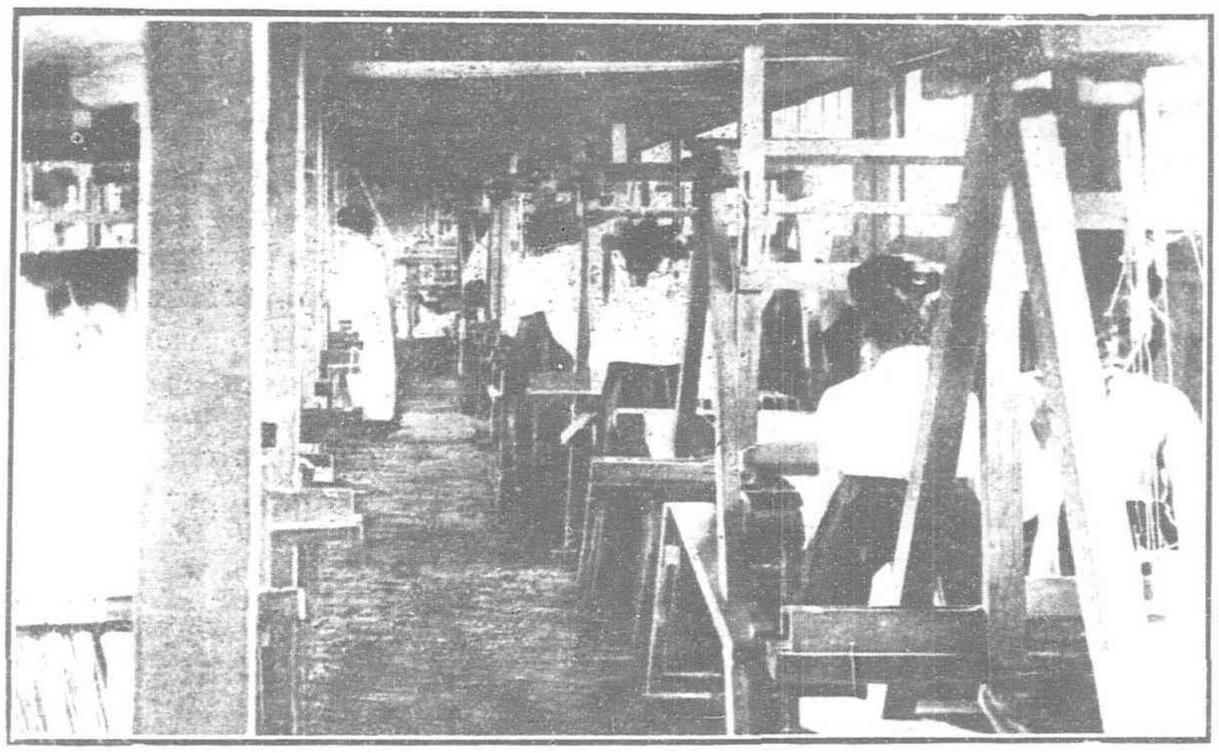
But the encouragement afforded to sericulture is only one of the many instances of the method with which the economic resources of Korea are being developed and exploited under the new *régime*. Five model farms, or agricultural experimental stations, have been established, one each at Suwon, Mokpo, Kunsan, Pingyang and Taiku; a school of agriculture and forestry has been opened in connection with the model farm at Suwon; effective measures have been adopted for repairing the old irrigation ponds, which though originally serviceable, became practically useless through ages of neglect; horticultural stations, nursery gardens, and a cotton plantation station have been inaugurated in various sections of the country, all by the initiative and under the auspices of the government.

Nor did the government confine its activities to agriculture: in the field of industry it did commendable work. The Department of Agriculture, Commerce and Industry instructed the provincial governors to investigate the industrial conditions in their respective jurisdictions, and to report the most promising industries which might be encouraged in the interest of the country. The result was the granting of subsidies to weaving and matting industries, paper manufacture, and bamboo works. But all industries in Korea are in the infant stage, and await improvement at the hands of the rising generation trained in modern sciences and arts. To meet this urgent necessity the government established an industrial training school in Seoul, with courses in dyeing and weaving, keramics, metal work, applied chemistry, and civil engineering. Meanwhile, a commercial school was established in Seoul with a fund of Y.200,000 donated by Mr. K. Okura, a wealthy Japanese merchant, who had already established two commercial schools in his native country.

In travelling through Korea one is struck with the denuded condition of its mountains and hills, and one wonders if it was one of the whims of nature that omitted to adorn them with trees. Yet there is evidence that in ancient times this grim, naked country was clad with vegetation. What was it, then, that converted Korea into a treeless country? The only plausible answer to this question seems to be that the natives felled timber in a most arbitrary manner, and when the mountains and hills and plains were divested of trees, never thought of setting young plants, thinking, perhaps, that forests, like Aladdin's palace, would spring from nothing. The tyranny of the Korean ruler also had something to do with the annihilation of forests. It is within the ken of history that people in different localities set fire to forests merely to avoid the imposition of whimsical sovereigns who would command their subjects to bring timber to the capital to furnish material for their new palaces. In an age when there was no iron road and in a country where even the beasts of burden were but sparingly utilized, it is beyond our imagination what enormous labor and what appalling suffering it must entail to haul huge timber, often hundreds of miles, over rough trails degenerating now and again into ravines and ditches. Small wonder that the abused people should have reduced their forests to ashes rather than be so imposed upon by extravagant rulers.

However that may have been, the Japanese administration found it an urgent necessity to reforest the denuded mountains and hills which brought about calamities such as flood and landslides, so common in all treeless countries. Thus the Japanese authorities caused the Korean government, in 1907, to establish model forests in the mountains near Seoul, Taiku and Pingyang, as well as three extensive nurseries in the vicinity of Pingyang, Taiku and Suwon. A bureau of forestry was created in the Department of Agriculture, Commerce and Industry, and

a school of forestry and agriculture was established at Suwon. The model forestry stations are all equipped with a staff of experts and clerks, and are entrusted with the task of afforesting the mountains, plains, and moors belonging to the state. The model forests already established comprise 83,300 acres and will in time certain 17,889,000 trees. To supply them with young trees, the nursery gardens at Suwon, Pingyang and Taiku, have raised countless plants.



TRAINING IN WEAVING SUPPORTED BY THE FUND

Next we must consider sanitary measures, which in a country like Korea, frequented by all sorts of epidemic diseases, are of the utmost importance. In January, 1908, a sanitary bureau was created in the Department of Home Affairs, and was entrusted with the administration of sanitary affairs of the country. Measures have been adopted to combat cholera, typhoid fever, smallpox, dysentery, diphtheria and scarlet fever, and the effect has already become perceptible in spite of native prejudice against such measures. The characteristic attitude of Koreans towards the stern requirements of modern civilization is seen in the idea they entertain of the hospital for epidemic diseases. Should a Korean patient die in such a hospital whither he was taken by order of the government on account of cholera or diphtheria he contracted, the picturesque Koreans believe that the poor man was buried before he breathed his last. This is how the Koreans got the notion that the Japanese, like the tyrants of old, burn patients or bury them alive.

Before the advent of the new *régime* Korea had no adequately equipped hospital. Missionary hospitals there were, and also a few small hospitals maintained by the Korean government or various Japanese settlements; but these were all imperfect in more respects than one. As early as 1906 the Korean government, at the advice of the Japanese residency-general, decided to inaugurate a large hospital by amalgamating the hospitals then maintained by the government. For this purpose Yen 357,577 was allotted. The hospital thus established was called the Taihan (or Great Korea) Hospital, and was under the control of the Home Department. Its medical faculty was composed of a president, eight Japanese and two Korean doctors, three Japanese and five Korean assistants, four Japanese pharmacists and ten Japanese nurses.

As a corollary to the establishment of the Taihan Hospital a medical school was inaugurated, which became the successor to the old Seoul Medical School maintained by the Educational Department. The new institution is much larger in scope and more complete in equipment than its predecessor, and is designed to train Koreans not only as physicians and pharmacists, but also as midwives and nurses.

In the execution of sanitary measures the supply of pure water is of the first importance. Especially is this true in a country where impure water has been the main cause of epidemic diseases which have swept away thousands and even tens of thousands of human lives year after year. And yet the question of water supply had never attracted the serious attention of the Korean authorities or people, until the Japanese municipal council in Seoul held, in January, 1904, a meeting to discuss the matter, which resulted in a decision to build a reservoir near Seoul at a cost of Yen 100,000, for the purpose of supplying the Japanese settlement with pure water. The resolution was not carried out, owing to the protest of Messrs. Collbran and Bostwick, an American firm, which claimed the exclusive privilege of constructing waterworks in Seoul. In 1906, the Japanese residency-general advised the Seoul government to install waterworks in the principal towns. As the consequence a bureau of waterworks was organized, and the construction of waterworks at Chemulpo and Pingyang was commenced, with funds amounting to Yen 2,170,000 and Yen 1,360,000, respectively. At the same time a subsidy of Yen 350,000 was granted to the Fusan waterworks undertaken by the Japanese settlement there, while a loan of Yen 150,000 was made in favor of a similar undertaking by the Japanese settlement municipality in Mokpo. All these works were completed during 1910.

Last to be considered is educational reform. Immediately after the Chino-Japanese war the Korean government made a feint of following Japan's urgent advice for educational reform, by issuing several laws and ordinances relating to primary, middle, normal and technical schools, but these plausibly commendable laws were never carried into effect. True, several schools were established in Seoul and a few other principal towns, but these did little more than the teaching of Chinese ideographs and caligraphy. The original native school system comprises the *Chu-pung*, the *Han-gyo*, and the *Son-gyun-kaon*. The *Chu-pung* is a school, if school it may be called, maintained by a village literateur who teaches the writing and reading of Chinese characters; in the *Han-gyo*, where the image of Confucius is worshipped, more advanced lessons in Chinese literature are offered; the *Son-gyun-kaon*, the highest seat of learning, is in Seoul, and is devoted to the study of the Chinese classics.

It will be seen that the original system of education was utterly out of touch with the spirit of the times. Consequently the Japanese residency-general prevailed upon the Korean government, in March, 1906, to appropriate for educational reform Yen 500,000. Of this sum, Yen 350,000 was allotted for improving and establishing common schools, high schools, and foreign language schools. Thus up to the end of 1908, fifty-nine common schools were established in accord with modern principles of pedagogy. In the common schools compulsory attendance is not in vogue, as the present standard of living in Korea does not warrant the adoption of such a system; but to attract children to the schools, both tuition and text-books are given gratuitously. Along with the inauguration of common schools, a high school, a foreign language school, and a normal school were established in Seoul, while the time-honored *Son-gyun kaon* was improved by adding to its curriculum elementary law and economics, mathematics, history, geography, the Japanese language and the Korean classics. At the same time, the authorities have not neglected the education of girls. In Korea, as in China, women are relegated to a shady hemisphere, with the result that the education of girls has been regarded as something utterly useless. While recognizing the necessity of educating girls, the authorities have not deemed it wise to upset the established moral conceptions of the people, and in consequence girls are taught separately from boys in the new common schools, and a high school exclusively for girls has been established in Seoul.

TRAINING IN SERICULTURE SUPPORTED BY IMPERIAL DONATION FUND

Coal Mines Located Near Chinchow

There are several coal mines located in the left bank of the Hsiao-ling-ho River about 70 *li* southeast of Chinchow and 100 *li* south of Lienshanwan (South Manchuria), known as Peh-tai-ping, Kao-li-ching-shui, Liu-cheng-yao, Shang-ting-tzu, Shan-tung-yao, Ying-ko-hung-yao and Kow-chien-shan-tzu mines. They are owned by individual Chinese.

How much money has been invested in each of these mines is unknown. The region, wherein they are found, is said to be the tract of land leased by Liang Chao-nan, ex-Director of the Mining Bureau of Mukden, mining having been started nearly 50 years ago.

Mines appear to have been worked intermittently in this district, but those now under operation are the Peh-tai-ping, Liu-cheng-yao and Ying-ko-yao pits. They are run on a very small scale, with the exception of the Liu-cheng-yao mine which alone may be considered to be worked under a more or less advanced system. The description of each mine is given below.

Peh-tai-ping Mine.—Operations were started in the 3rd year of Emperor Kuanghsu (1875-1908), but work was abandoned until the 34th year owing to water. The new attempt again proved unsuccessful in consequence of poor engineering work. In October, 1913, a shaft was sunk on a hill at the north of the village. It is said that 100,000 catties of coal have been taken out since the new pit was opened.

Kao-li-ching-tzu Mine.—In the 20th year of Emperor Kuanghsu, a certain Chinese named Wu Tzu-chow began working this mine. During the following year, an American undertook to buy a half interest in the mine, but after a while the funds were exhausted, and they had to fall back on the native mining methods. Employing 70 miners and 34 coolies for bailing out water, they managed to take out 25,000 catties of coal a day, but as the partnership was not legally formed, the authorities stepped in and forced them to suspend work. The mine now lies idle.

Liu-cheng-yao Mine.—Up till 30 years ago, coal was taken out in this region by the natives for their family use, but in October in the 2nd year of Emperor Hsuantung (1908-1912), enterprising persons in the community got together and commenced to mine on a larger scale. Before long, they were able to produce 30,000 catties a day when an explosion occurred in February, 1912. Two shafts were subsequently sunk which were also ruined by an explosion. Nearly 60,000 catties of coal a day are now being mined by employing 120 bailing coolies, 70 miners, 3 carpenters and 2 black-smiths.

Shan-ting-tzu Mine.—In November, of the 31st year of Emperor Kuanghsu, Chao Wen-pang started to mine. At one time, using 30 miners and 70 bailing coolies, he was able to take out 25,000 catties of coal a day, but now the work is abandoned.

Shantung Mine.—In bygone days, people mined here but the work was abandoned before they could take out a sufficient quantity of coal to meet their expenses. Many holes left by them can still be seen telling the tale of their unsuccessful attempts.

Ying-ko-yao Mine.—Judging from many abandoned pits found in the locality, mining must have been quite popular among the local people. The one now operated is owned by a certain Yang, which was opened in February, 1914. A month's output is said to be 12,000 catties.

Hung-yao-kow Mine.—In the 26th year of Kuanghsu, a man named Lin Ching began to mine coal. At one time, the output reached 17,000 catties a day, but the work was abandoned as the mine sprang water.

Chien-tzu-shan Mine.—The first pit was worked by a certain Yang in the 10th year of Emperor Hsienfeng (1850-1861), and the operation was kept up for nearly 10 years, when it was abandoned on account of the diminution of the seam as it was worked lower down, coupled with an inflow of too much water.

The second pit was started by Wang Chun-li in the 26th year of Kuanghsu and he got out 3,000 catties of coal a day, but four years later, the work was stopped, and now the mine remains idle.

Another pit was opened in the 1st year of Kuanghsu by Ho Cheng-yu, but was abandoned in the 4th year, later to be taken up by Lo Tien-fu. The latter was more or less successful in his undertaking, but he too discontinued work on account of water. In the 32nd year a new shaft was sunk by Li Lien-fang, but 3 years later the operation was suspended due to the poor quality and quantity of the deposit.

The coal deposit in this region is estimated at 790,800 tons, of which 316,300 tons are workable. The seam is generally bifarious, the upper seam ranging in thickness from one to 1.2-ft. (poor in quality) and the lower 2-7-ft. The coal exists in the state of lump and dust. It is brittle and easily reduced to powder. Its specific gravity is 1.34—1.55. It contains iron sulphide, and leaves a large percentage of ash when burnt. Since it is bituminous coal quite close to anthracite, it has no caking power, and is therefore unfit for the manufacture of coke. The calorific power being weak, it cannot be used with advantage for boilers, its use being limited to household, black-smiths, oil mills, spirit distilleries, potteries, etc.

The following is the analysis of the coal:

	Pehtaiping Lump.	Pehtaiping Dust.	Kaolichingtzu Coal.	Shungtiagtzu Coal.
Humidity	1.81	1.28	6.25	5.80
Volatile Substance .	5.35	7.84	22.50	21.60
Fixed Carbon ...	66.95	30.30	—	—
Caking Power ...	—	—	56.10	49.80
Ashes	25.89	60.58	15.20	21.80
Sulphur	1.083	0.593	6.869	3.189
Specific Gravity ...	1.43	1.47	1.35	1.34
Calory	6.765	3.201	6.754	—
	Linchengyao Grey Coal.	Linchengyao Black Coal.	Hungyaokow Coal.	Chienshantzu Coal.
Humidity	2.93	1.41	1.28	3.20
Volatile Substance .	27.66	4.58	29.00	12.50
Fixed Carbon ...	52.35	78.73	—	—
Caking Power ...	—	—	47.00	63.50
Ashes	17.06	15.28	22.70	20.80
Sulphur	0.777	0.981	0.158	0.985
Specific Gravity ...	1.42	1.39	1.42	1.55
Calory	7.161	9.989	6.024	6.198

Equipment, Market, etc.—The galleries of these mines are unvariably built sloping down at an incline of 35-40 degrees. At the Taipingyao mine, there is only one gallery, whereas at the Linchengyao mine three galleries are found, the one in the centre being used for the entrance and exit of miners and water coolies. Logs of willow or poplar measuring 3-6-in. at the end are used for props.

Native methods are employed for mining. Coal excavated is put into willow baskets or gunny sacks and carried outside by carriers. Water is bailed out by a relay of men, who are stationed in a set of two, one above the other at a distance of three feet and provided with a willow basket to which two pieces of rope are attached at each end, and thus water is scooped up from the bottom gradually.

No means of ventilation being provided, the air inside is far from being healthy for human inhalation. Miners use hand-lamps, and as ventilation is poor, they are exposed to great danger of explosion.

They work usually for 12 hours, two sets of miners taking turns every six hours. The wages are paid according to the following scale: miners and coal carriers, 50 cents; prop workers, 35 cents; water coolies, 30 cents; coolies working outside the pit, 25 cents; blacksmiths and carpenters, 20-30 cents per day. During the rainy season, which extends from June to August, mining is suspended.

The coal is sold to spirit distilleries, oil mills, farriers, black-smiths, brick factories, lime kilns, bath houses, and families in neighboring localities. The coal is very inexpensive, the lump coal of the Pehtaiping and Liu-cheng-yao mines being worth 25 cents per 100 catties at the pit, while dust brings only 10 cents. A small quantity of the output is shipped to Chinchow by means of carts and mules or donkeys, a cart carrying up to 1-500 catties, and a draft animal 120-300 catties. The cost of transportation to Chinchow is something like 30 cents per 100 catties.—"China Advertiser."

Engineering, Financial, Commercial, and Industrial News

RAILWAYS

Proposed Railways in Mongolia.—According to the "Shun Tien Shih Pao," the Chinese Government is seriously thinking of constructing railways in Mongolia so as to bring the territory into closer connection with China Proper. The lines under contemplation are: (1) from Kalgan to Manchouli; (2) from Kueihua-Suiyuan to Kiahkta via Kulun; (3) from Sui-erh-wu-su to Altai, via Ulyasutai and Kobudo.

Locos for S.M.R. Lines.—Twenty-four locomotives and their accessories, weighing 2,100 tons and valued at several million yen, which constituted a record both in value and quantity of freight ever landed from a single steamer at the port of Fusan, Korea, was delivered there from New York early in November by the steamship *Tokiwa Maru* of the Nippon Yusen Kaisha. The locomotives were imported by the Mitsui Bussan Kaisha for the Chosen Railways and are to be used on the Peninsular railroads.

New Project in Chihli Province.—The Chihli (China) Provincial Assembly has adopted a resolution in favor of the construction of a railway from Tsangchow, on the Tientsin-Pukow railway, to Shihkiachwang, on the Peking-Hankow line, to be constructed with funds raised by the Chihli merchants and gentry. The cost is estimated at between six and ten million dollars. Influential personages are to apply to the Government for permission to build the line.

The Kyogyo Railway Company.—The "Seoul Press" states that the Kyogyo Tetsudo Kaisha, capitalized at five million yen, which has of late come into existence, was to have put 106,000 of its shares on the market during November. It is said that the company is meeting with great popularity on account of its good future prospects, and it is thought that the shares will be much oversubscribed.

Projected Peking-Jehol Line.—It is reported that the Chinese Ministry of Communications has been instructed to proceed with its plans for the construction of the proposed line from Peking to Jehol, and that officials have been appointed to make the necessary surveys of the line which will pass through Chihsien and go from Chien-an and Chi-feng directly to Jehol. A route between these two places was surveyed some years ago.

Chefoo-Weihsien Railway.—A scheme is reported to be afoot to organize a company called the Chefoo-Weishien Railway Co., Limited, with a nominal capital amounting to $18,000,000 to be subscribed for by the people.

TRAMWAYS

Electric Tramway for Tsingtao.—It is reported from Tsingtao that the authorities are drawing up plans for the construction of an electric tramway system. It will entail an outlay of about 3 million yen.

MOTORS

Automobile Traffic in Manchuria and Mongolia.—The region wherein Changchiatun and Taonan are located being a grain country, and adjoining the place where native soda is produced, busy traffic is kept up all the year round. At present, however, there is no means of communication in existence save Chinese carts. This inconvenience will soon be done away with by an automobile service which is now seriously contemplated by influential parties at Chengchiatun, Shihpingkai and Mukden. According to the plan of the promoters, says the "China Advertiser," a company called the Manchuria and Mongolia Automobile Company, Ltd., will be established, with a capital of half a million yen to operate seven motor lorries for goods and three passenger cars between Changchiatun and Taonan.

WATERWORKS

Waterworks at Wuchang.—According to the Wuchang (Hupeh Province) correspondent of the "North-China Daily News," there are rumours abroad that the waterworks scheme is to be revived. Just before the war, a syndicate was formed to supply Wuchang with water. Some of the capital was to come (if my memory serves me) from a German source. A certain amount of land was acquired and some work was put in on the digging of reservoirs, while a pumping station was to be erected on the top of the Serpent Hill. However, at the outbreak of hostilities, the supply of foreign capital was cut off, and the whole scheme collapsed, the site of one of the reservoirs being acquired by a coal company. Now it is hoped that the project will be resumed on a more secure basis, and if properly managed should prove a veritable gold mine to those willing to invest their money in it.

SHIPPING

New Japan-Korean Service.—The South Manchuria Railway Company has arranged with the Sawayama Steamship Company for the inauguration of a regular service between Fusan, Osaka, and Kobe, with a view to alleviating the congestion of goods consigned to Western Japan from Korea along the Sanyo Railway. It is said that two steamers of 1,000 tons each will be placed on the service, making six runs a month.

Agent American Bureau of Shipping.—Captain W. I. Eisler, U.S.N., has been appointed Agent and Surveyor to the American Bureau of Shipping for the territory comprising Shanghai, Ningpo, all Yangtze River ports, Tientsin, Chefoo, Newchwang, Dairen and all other North China ports where the Bureau may have business. Captain Eisler was Marine Superintendent in Shanghai of the Standard Oil Company of New York until called to Washington by the United States Navy Department.

Robert Dollar Enterprise.—The Robert Dollar Company have bought fourteen acres of waterfront in New York in connection with their freight and passenger service from New York via Panama to Shanghai, which they will operate with six vessels. They are spending a million dollars on the wharf and buildings.

Express Service to Shanghai.—The Nippon Yusen Kaisha has proposed to inaugurate an express Shanghai service with two 5,000-ton passenger liners which will be newly built, probably by April, 1921, and there is much speculation and competition between Nagasaki and Moji, as to which of the latter ports be preferred as the Japan port of the express service. The question has not yet been decided apparently, as the Communications Department is also interested in the project. Now that the Nagasaki harbor improvement scheme is expected to be materialized there is a hope of Nagasaki securing that advantage.

"Nippon Maru" Sold to Chilean Company.—The T.K.K. *Nippon Maru* has been sold to the South American Steamship Company, of Chile. The vessel will be delivered in Kobe.

M.B.K. Developing Shipping.—The Mitsui Bussan Kaisha, which besides undertaking a wide variety of business enterprises, is one of the largest shipowners in Japan, the vessels in its possession numbering 26, totalling 92,000 tons deadweight, in addition to the five ships, totalling 33,000 tons deadweight, owned by the Liaotung Kisen Kaisha which is affiliated with the company, will shortly inaugurate regular services between Dairen and Japan, on the North American run and on some other ocean lines.

N.Y.K. Dividend.—The Nippon Yusen Kaisha proposes to pay a dividend of 100 per cent. for the business term just ended. This is the highest rate ever paid by the Nippon Yusen Kaisha or by another company in Japan except a certain parikin company in Kobe which paid 500 per cent. during the war boom, says the "Japan Advertiser." The N.Y.K. dividend for the previous term was 50 per cent., consisting of 10 per cent. ordinary dividends and 40 per cent. as extra dividends. This dividend is to be paid out of a special reserve fund consisting of Y.54,949,000. It is now reported that the management of the company has decided to allot Y.30,000,000 of the special fund to the construction of new vessels, and to distribute Y.14,500,000 among the shareholders by paying a special dividend of 50 per cent. Of the remaining amount, Y.3,000,000 will be devoted to the funds for the training of seamen, and Y.5,000,000 will be distributed among the directors and employees as special bonuses, while the remaining Y.2,000,000 odd will be carried forward to the next business term.

SHIPBUILDING

Costs Rising in Japan.—The advance in prices of commodities and in wages has considerably increased the cost of shipbuilding in Japan. At present the leading shipyards have their hands full with ships to be built for America and vessels ordered by Japanese. These ships will not be completed until the latter part of next year. It is understood, says the "Japan Advertiser," that these orders were accepted at prices ranging from Y.350 to Y.400 per ton but during the last six months shipbuilding materials have advanced in price by from 20 to 30 per cent. For instance, what was quoted at Y.200 six months ago is now valued at between Y.240 and Y.250. In addition, wages have increased by from 30 to 60 per cent. It is estimated that the shipbuilding cost has

advanced by over Y.30 per ton. When present supplies are exhausted, it is said there will be a further increase in the shipbuilding cost.

The opinion is expressed that the shipbuilding industry of Japan will be even more active during the next few years than during the war boom.

Big Fleet Planned by N.Y.K.—Many of the leading shareholders of the Nippon Yusen Kaisha are taking a considerable interest in the matter of making the best possible use of surplus funds. It is said that Mr. Namba Reikichi, one of the most influential shareholders, had an unofficial interview with Baron Kondo, the President of the company, and the "Japan Chronicle" was given to understand that Baron Kondo stated that the company would be in need of immense funds at no distant date, in connection with the construction of a great mercantile fleet to meet the competition of Britain and America, who both have a formidable post bellum shipping policy.

Hongkong as the Building Centre.—As there has been some speculation as to which port is destined to take the pre-eminent place in Far Eastern trade in the future, it is interesting to note Sir Paul Chater's opinion, expressed on the occasion of the launching of the Trooper by the Hongkong and Whampoa Dock Company recently. Shanghai, as will be seen, is out of the running. Our "confirmed optimist," as Sir Paul is often called by Hongkongites, remarked that he had known Hongkong intimately for 55 years. He had watched it grow from very early days and he dared to risk being prophetic about its future. When, he said, it is in the position of receiving its supply of iron and coal from the neighboring Chinese provinces—and he had reason to hope that it would very soon be in that position—Hongkong will be such that no Port in the East will be able to excel it. Mr. R. M. Dyer, the manager of the Dock Company, also remarked that the centre of gravity for shipbuilding was gradually coming nearer East and was of the opinion that in the near future the dynamic centre of ship-building would not be very far from this Port, writes the "North-China Daily News" Hongkong correspondent.

Mitsubishi Yard Launches a U. S. Freighter.—The *Eastern Victor*, a 9,000-ton freighter, was launched at the Mitsubishi Engine and Dockyard Co., in Kobe, on November 10. Mr. John A. McGregor, Japan representative of the United States Shipping Board Emergency Fleet Corporation, replying to a speech made by the host of the dockyard firm, said: "When we came to Japan to take charge of the completion of the various contracts between the United States and Japan, we, of course, did not anticipate the delightful experiences in store for us, and I wish to take this opportunity of saying that probably no experience in our lives has given us a greater measure of pleasure than our coming to Japan and the courtesies extended to us. During the troublesome times of the war the United States was very grateful of the opportunity to ask the cooperation and assistance of the Japanese shipbuilders, and with this cooperation and assistance there could be only one result—victory for civilization. The ships building in Japan will form a very important part of the Merchant Fleet of the United States. Some of the people may feel a little afraid of the competition of the Japanese shipbuilders, but I want to say that without competition there can be no progress, and I want to accord to Japan every measure of credit. The progress of shipbuilding in Japan is brought out by the fact that a few years ago, the Japanese were having their ships built by other countries but now those same countries are having their ships built in Japan In further regard to the shipbuilding industry in Japan I could mention many things to the credit of the Mitsubishi Company but I will let their record speak for them."

C.M.S.N. Co. Build New Ships.—The China Merchants' Steam Navigation Co. are to build two ships, one for the Yangtze and the other for overseas traffic. More ships will be built later on to fill the sadly needed shortage of shipping now felt by the company.

Dairen-Tientsin Trade.—The Dairen Steamship Co. which operates the *Tencho* and *Saitsu* between Tientsin and Dairen, intend to add another steamer to the route, for the construction of which an order has been given to a certain dockyard in Japan.

Steel from America.—A contract for 30,000 tons of steel, valued at $2,700,000, has been placed with the United States Steel Corporation by the Kawasaki Dockyards Company of Kobe, Japan, according to Ichiro Yamada, representative of the company in Seattle. This company, which has delivered seven 9,000-ton steel vessels to the United States Shipping Board, will deliver the last five of its ships-for-steel contract by the end of this year, Yamada said. Next year, he added, the company plans to turn out two 9,000-ton steamers monthly for private account. On October 1 the yards' 20,000 employees went on the 8-hour day basis, the first industrial plant in Japan to adopt the 8-hour day, Yamada said.

Japan's Output.—Nine ships, totalling 48,800 tons gross, were launched during October in Japan, according to the returns of the Department of Communications which cover ships of over 1,000 tons gross. In October of last year 18 ships, totalling 41,624 tons gross, were launched. Compared with these launchings, the ships launched in October show a decrease of 9 in number and an increase of 7,770 tons. The reason is that of the 18 ships launched in the corresponding month of last year, 14 were ships of less than 3,000 tons gross each, while the nine ships launched last October had a capacity of over 3,000 tons. The ships of over 1,000 tons gross, each launched between January and October number 102, totalling 452,394 tons gross, with a decrease of 38 in number and an increase of 57,364 tons compared with the vessels launched in the corresponding period of last year.

Uchida Yards Launch Freighter.—The *Eastern Glade*, the first of the two ships contracted for by the United States from the Uchida Shipbuilding & Engineering Co. was launched at Kanagawa, Japan, on November 5. The *Eastern Glade* is a steel cargo-boat, 400 feet long, 54 ft. 6 in. beam, depth, 30 ft.; loaded depth 24 ft. 6 in.; 8,500 tons, deadweight; gross tonnage, 5,700 tons: 3,700, horse power and speed, 10½ knots.

Asano Shipyard Active.—The *Koshun Maru*, a freighter of 8,800 tons deadweight, was launched at the Asano Shipyard, Tsurumi, Japan, on Novembr 10. The keel was laid on June 16 last, and the steamer has been built for the Kobe Pier Company. This is the eleventh steamer launched at the Asano Shipyard this year, a total of approximately 100,000 tons.

Refrigerator Ships for Tsingtao Trade.—Some enterprising Osaka (Japan) business men are reported to be planning the establishment of a refrigerator company in the city with a capital of Y.3,000,000 to start with for the purpose of importing from Tsingtau about 500 carcases of beef and vegetables every month by means of refrigerating ships. The company also contemplates the export of sundries and other commodities such as are likely to be in demand among the residents in the Chinese port. The development of this scheme is watched with interest.

Kawasaki Dockyard Bonus.—The Kawasaki Dockyard, Kobe, distributed Y.3,750,000 among its employees as a bonus. To encourage thrift the recipients were presented with a bank deposit book with their individual portions paid in to their credit.

U. S. Ships from Japan.—Of the 30 ships, totalling 161,415 tons gross, to be built in Japan under the second agreement with the U. S. Shipping Board Emergency Fleet Corporation, the *Eastern Guild*, 3,770 tons gross, and the *Eastern Breeze*, 4,700 tons gross, were completed during October, says the "Japan Advertiser," and the other 28 ships will be completed by next April as follows, according to the Japanese Department of Communications:

November.—*Eastern Bell*, 3,200, Ishikawajima Shipyard; *Eastern Merchant*, 8,250, Asano Shipyard; *Eastern Trader*, 8,250, Asano Shipyard; *Eastern Crag*, 3,770, Yokohama Dockyard; *Eastern Gale*, 4,700, Yokohama Dockyard; Not yet named, 3,180, Harima Dockyard; *Eastern Victor*, 5,150, Mitsubishi Shipyard, Kobe. Total 36,500 tons.

December.—*Eastern Mate*, 3,200, Ishikawajima Shipyard; *Eastern Coast*, 3,770, Yokohama Dockyard; *Eastern Knight*, 7,300, Osaka Ironworks; *Eastern Moon*, 5,860, Kawasaki Dockyard; *Eastern Crown*, 5,150, Mitsubishi Shipyard, Nagasaki. —Total 25,280 tons.

January.—*Eastern Glade*, 5,700, Uchida Shipyard; *Eastern Warrior*, 7,300, Osaka Ironworks; *Eastern Ocean*, 5,860, Kawasaki Dockyard.—Total 18,860 tons.

February.—*Eastern Glen*, 5,700, Uchida Shipyard; *Eastern Admiral*, 7,300, Osaka Ironworks; *Eastern Temple*, 3,700, Nitta Shipyard; *Eastern Planet*, 5,860, Kawasaki Dockyard; *Eastern Importer*, 5,800, Mitsui Shipyard.—Total 28,360 tons.

March.—*Eastern Tempest*, 4,700, Uraga Dockyard; *Eastern Sailor*, 7,300, Uraga Dockyard; *Eastern Dawn*, 5,860, Kawasaki Dockyard; *Eastern Crown*, 5,860, Kawasaki Dockyard; Net yet named, 6,875, Harima Dockyard; *Eastern Exporter*, 5,800, Mitsui Shipyard.—Total 36,395 tons.

April.—*Eastern Sword*, 3,800, Uraga Dockyard; *Eastern Leader*, 3,750, Fuji-Nagata Shipyard.—Total 7,550 tons.

INDUSTRIES

Korean Company Ordinance.—The Korean Company Ordinance, which has for some years past been an object of criticism, will shortly be abolished subject to approval by the home Government, according to the "Seoul Press." The Ordinance has been very unpopular and has provoked much criticism, but its enforcement was necessitated in order to protect industry in the peninsula, which was in its infancy when the ordinance was published.

Yokohama Thriving.—In 1913 there were 786 factories in Yokohama with 12,873 workmen while in 1918 the number of factories increased to 1,660 with 32,295 employees. According to the latest investigation by the municipality, there are 466 commercial companies with an aggregated paid up capital of Y109,521,513, and 210 industrial companies with a total capital of Y.50,712,240.

Big Cotton Spinning Dividends.—It is interesting to learn that the Toyo Spinning Company of Osaka is paying a dividend of 60 per cent. for the second half of the current year. For the first half, the company paid a similar dividend, and if rumor is correct, the shareholders are not satisfied with the present rate, high as it is, but want more. It is also stated that the company has decided, though not formally, to increase its present capital of Y.25,000,000 to Y.50,000,000.

Russo-Japanese Fishery Co.—The Russo-Japanese Fishery Company of Osaka reports for the second half of the present fiscal year a net profit of Y.638,681.

Fertiliser Venture in Korea.—Baron Okura Kihachiro, head of the famous Okura firm, with some friends and other leading businessmen connected with the Toyo Colonisation Company, is now interested in a scheme for establishing a fertiliser company with a capital of Y.3,000,000 in New Wiju, North Korea. The company will manufacture bean-cake, oil-cake and vegetable oils.

Clay Products in China.—With the development of the large iron deposits in China a demand for fire-bricks will, it is believed have to be met ere long, says the "Shanghai Times." The deposits within a few miles of Nanking are to be developed, and it is reported that a small start will be made next year, and that furnaces will be erected at Pukow, the terminus of the Tientsin-Pukow Railroad on the Yangtze, opposite the city of Nanking. There are large iron deposits throughout the district, but no large furnaces have as yet been erected, and in the case of one mine the iron ore is shipped to Japan. An additional demand for clay products will be found in the establishment of glass works contemplated in the near future. Another commodity for which there should be a large demand in the future is sewer pipes. At present there are absolutely no sewerage systems in China.

Boom in Industry in Japan.—According to the investigations made by the Mutsui Bank, the funds required for the flotation of new ventures or extension of already existing companies in Japan during September aggregated Y.360,990,000, of which Y.260,070,000 were spent for the new companies and the remaining Y.100,920,000 for extension. As compared with the previous month, a decrease of Y.49,260,000 is observed in flotation and of Y.103,779,000 in extension. The total capital required during the nine months of the current year amounted to Y.2,571,024,000, of which Y.1,627,020,000 was defrayed for the flotation of new companies. The figures show an increase of Y.128,080,000 taken as a whole, when compared with the corresponding period of last year.

According to investigations made by the Department of Agriculture and Commerce, the number of new companies floated during October, aggregated 478, capitalized at Y.58,311,000. Calculated from the beginning of the current year, the figures aggregate 5,574 in number and Y.396,523,000 in capital. Considering the many reports already made of the flotation of new ventures since last Spring, it is very interesting to note that the figures under review, when compared with the figures for last year, show a decrease of 879 in number and of Y.250,953,000 in capital. The greater significance of this year's boom lies in the fact that it is a peace boom, and not the "easy money" of war-time, says the "Japan Chronicle." Below are shown some of the particulars of the flotation of new companies for October:

Commerce	187	11,603,000
Industry	192	16,444,000
Mining	11	1,036,000
Agriculture	4	415,000
Forestry	12	480,000
Aquatic Products ...	6	948,000
Carrying Agencies ...	33	26,624,000
Miscellaneous	33	758,000

Big Logs for Japan.—Early in November a record shipment of fir and cedar logs which were shipped from Seattle on the s.s. *West Ison* arrived in Kobe, Japan. There were more than 150 logs, many of which were 10-ft. in diameter and 40-ft. long and weighing 30 tons each. The *West Ison* is on her maiden trip, being built in Seattle for the United States Shipping Board. She is an oil burning steamer.

South Seas Co. Dividend.—The Nanyo Gomu Takushoku Kaisha, or the South Seas Rubber Colonization Company of Osaka, is paying a dividend of 7 per cent. for the second half of the present year.

Japanese Acquire Woollen Mill.—Mr. S. Kawasaki who recently succeeded in buying a cotton mill at Shanghai managed and owned by British capitalists is reported in Osaka to have won another success at Wufu (? in Fukien province), China, where he has been studying local business and industrial conditions. His new purchase there is a woollen mill, which Mr. Kawasaki plans to place in the hands of a new Japanese joint stock company organized by him and his friends.

Cycle Factory for Kobe.—In view of the unlimited demand for bicycles in Japan, several leading Kobe business men are now interested in a scheme for establishing a concern in Kobe under the name of the Dai Nippon Sharyo (vehicle) Kabushiki Kaisha. It will engage chiefly in the manufacture of bicycles. The capital is fixed at Y.1,000,000, which will be divided into 20,000 shares. The face value is put at Y.50 per share, and Y.250,000 will be paid up to start with, which means a payment of Y.12.50 per share as a first instalment. One of the features in this scheme is that foreigners are invited to invest their money in it.

Woollen Mills for China.—With the directors of the Osaka Mousseline the Nippon Worsted, and the Osaka Wool Manufacturing Companies as central figures, a party of enterprising Osaka business men are now endeavoring to float a new wool company in Osaka with a capital of Y.10,000,000 to start with. The chief feature of this scheme is that the factories will be in China. It is reported that the promoters intend to buy up a certain similar company in Wuchang, China, and enlarge it. As regards the nationality of the company referred to, nothing is mentioned, but it seems to be run with Japanese capital. It is expected that a part of the new shares of the concern now under way will be offered to the public for subscription at no distant date.

Two New Korean Companies.—The organization of an industrial joint-stock company in South Chonla Province, promoted by Mr. K. Ishii, and seven other Japanese capitalists, has been officially recognized. The company will have its main office at Kwangju and will principally undertake the purchase and sale of land and houses, investing one million yen in the enterprise. Under date of October 5 official permission has also been granted to the establishment of the Chosen Agricultural Undertaking Company, application for which was filed some time ago with the authorities by Mr. K. Baba, and several other merchants in South Pyongando. The projected company will be capitalized at half a million yen with its main office at Chinnampo, says the "Japan Chronicle."

Extension of Tsinan Paper Mill.—With a view of supplying the local demand for material for newspapers, the Hsikuan Paper Mill at Tsinanfu is making preparations to extend its works. The mill will engage experts and manufacture different grades of paper, other than those used by journals.

New Sino-Japanese Tobacco Co.—The Chung-Hua Tobacco Co. (Sino-Japanese joint undertaking) held an inauguration general meeting at Mukden on October 28. At first, the purchase of the Tung-hua and Sanlin Tobacco Companies was intended, but instead of buying over the latter, the new concern decided to amalgamate with them by increasing its capital to one million yen. As to the site of the factory, Tsinanfu was strongly supported, but at the general meeting it was decided to build the first workshop at Tsingtao.

Salt Output at Shantung.—According to investigations of the Salt Commissioner of Shantung, the amount of salt manufactured at the 7 salt producing areas in the province totals roughly 520 million catties. The details are as under: Wang-kangchang, 230,000,000 catties; Taichang, 100,000,000 catties; Shihhochang 76,000,000 catties; Taolochang 45,000,000 catties; Hsiyaochang 25,000,000 catties; Fukueichang 18,000,000 catties; Yunglichang 16,000,000 catties.

From April to the end of September, 115,129 tons of salt were shipped from Tsingtao, says the "China Advertiser." It is said that in 20 days in October 17,835.4 tons were shipped. The following is the amount of salt exported every month:—April 10,429.4 tons; May 11,058.0 tons; June 20,960.0 tons; July 15,325.0 tons; August 27,323.7 tons; September 30,033.0.

Development of Manchuria.—Mr. Mukai, President of the Manchuria Skin and Leather Co., is contemplating establishing a large company to develop industry in Manchuria and Mongolia, says the "China Advertiser." The idea is to ship from China cattle, fish, eggs and vegetables to assist in the solution of the food question in Japan. The company will own 2 steamers of 3,000 tons carrying capacity equipped with cold storage rooms, for which an order has been given to a dockyard in Japan, to be completed within 5 months.

Besides, the company purposes to engage in skin, leather, animal bone and bone dust industry, the manufacture of bean-cakes, and engage in forestry and farming business. The capital will be 20 million yen, of which one-quarter payment will be required for the present. The company will build cold storage houses at Dairen, Fusan, Moji, Kobe, Tokyo, Yokohama and Tsingtao, and operate cold storage cars in Japan.

Another company to be called the South Manchuria Industrial Development Co. with a capital of 100 million yen is to be organized under the auspices of the Mitsubishi and other large capitalists. An office has been established in front of the Mukden Station.

Investigation of Shantung Industry.—Mr. Tien Wu-chan, Shantung Industrial Commissioner, has detailed officials to the various districts in the province to investigate the following matters: (1) The number and kinds of all factories in the Province; (2) articles manufactured by each of them; (3) articles manufactured in imitation of foreign goods and the difference between them and native goods; (4) the capital and financial conditions of each factory; (5) the amount of annual production and the market of the output of each factory; (6) the number of workmen employed by each factory; whether or not there is a margin left for improving the ware turned out; and if there is, how to do it; (7) comparison of price with that of foreign goods.

Japanese Cotton Mills in Tsingtao.—The Japan Cotton Spinning Co. has decided to establish a mill to manufacture a coarse grade of cotton yarn below 20 skeins at Tsingtao, and a tract of land comprising 25,000 *tsubo* (a *tsubo* is equivalent to 6-ft. square) has been purchased for the factory site, says the "China Advertiser." The number of spindles to be put into operation will be something like 35,000. Applications for permit are also on file from three different parties, Messrs. Toyoda, Jotaro Yamamoto, and the Nisshin Boseki Kaisha, for the establishment of cotton mills, each equipped with 30,000 spindles. Thus, when these works are completed, the total spindles now under operation (30,000) by the Naigai Mill and those to be operated in Tsingtao will come up to 155,000.

New Cotton Mill at Tientsin.—The Fuji Cotton Mill is building a factory to work 30,000 spindles at Tientsin.

Japan-China Cotton Spinning Co.—The Nikkwa Boshoku Kabushiki Kaisha (Japan-China Cotton Spinning Co., Ltd.), which purchased from Suketaro Kawasaki the site, machinery and spinning mill of the Shanghai International Cotton Manufacturing Co., Ltd., reports that since the transfer, work is proceeding without any hindrance. During the year 10,600,706 bales of cotton yarn were manufactured in 132⅛ days, and 125,945.8 pieces of cotton piece-goods in 127 days. The company employs 12 clerks (2 stationed at Osaka), 29 mechanics, 1,125 male and 2,596 female hands.

Receipts are stated at Y.6,357,502, and disbursements at Y.6,020,597. A bonus absorbed Y.15,000; a similar amount was carried to legal reserve; a dividend of Y.1 per share, equivalent to 12 per cent. absorbed Y.200,000, and Y.41,484 was carried forward.

Silk Floss in Chekiang.—Chekiang being a noted sericultural country, a considerable quantity of silk floss is produced from waste silk and pierced cocoons, the production from the latter considered to be the finest. The total amount of silk floss manufactured in the Province, of which Yuhang Hsien takes the lead, is estimated at 100,000 catties a year. The price ranges from $3.70 to $4.90 a catty, one catty consisting of 33-35 pieces of silk floss.

New Spinning Mill in Japan.—A group of leading business men in Osaka, Hyogo and Okayama Prefectures, Japan, are now endeavoring to form a new company under the name of the Seiban Spinning Company with a capital of Y.5,000,000. The mill will be established in the neighborhood of Tatsuno as well as Ako—western part of Banshu; hence the name Seiban (Western Banshu), Japan.

New Spinning Mill for Shantung.—A complete set of machinery for the Lu Feng Spinning Mill, organized a few years ago by several influential Chinese in Shantung, the delivery of which was delayed on account of the European war, has arrived from England, says an advice from Tsingtao, and it is now being set up. The company, whose capital is said to amount to $800,000, will work 16,000 spindles. Cotton raised in Shantung will be used, mixed with Tungchow cotton. It is, however, reported by the "China Advertiser" that the company, having exhausted its entire capital, like many native companies, is now trying to raise working funds and negotiating with various parties for a loan.

Ice Factory for Canton.—A Company styled the Hongkong and Canton Ice Manufacturing Co. will be floated with a capital of $400,000, to build an ice factory at Shameen, Canton. Land has been acquired and plant ordered, and it is hoped to turn out ice by next summer.

Cotton Mill at Wuchang.—The new cotton mill on the Yangtze bank at Wuchang recently received a further consignment of machinery, and now that conditions in Britain and America are becoming more normal, the complete outfit ought to arrive before very long. This factory is only the first of a number that are to be erected in this centre. There appears to be plenty of capital behind the venture, says the Wuchang correspondent of the "North-China Daily News," and all who have the welfare of China at heart will wish the promoters every success in their efforts to utilize the raw cotton grown in Hupeh and the surrounding provinces.

Canton Electric Co.—The growth of the Canton electric-light system has necessitated the purchase from America of two steam turbines of 2,500 horsepower, each costing about $400,000. At present the installation comprises about 400,000 lamps, with 4,000,000 candle power.

Pea-Nut Oil.—Ground-nut (pea nut) oil is extracted by the Chinese and used for food and illumination purposes in various provinces. In South China the ground-nuts are crushed and steamed for twenty minutes and then placed in primitive presses which are operated until oil ceases to run, 33 per cent. of oil is extracted by this means with specific gravity of .916 to .922.

Japanese Match Makers Amalgamated. — The leading Japanese match manufacturers are now trying to effect an amalgamation of match factories. It will be remembered, says the "Japan Chronicle," that during the war Japanese matches captured many markets, especially in the Far East, which had formerly been enjoyed by the Swedish manufacturers. Since the proclamation of the armistice, the Diamond Match Manufacturing Company (capitalized at Y.5,000,000), of America, has been contemplating competition with the Japanese manufacturers in China in particular, which is a very valuable customer, with its vast population numbering 400,000,000 people. The Japanese manufacturers, finding that this is a disadvantage to all the parties concerned, desire to effect an amalgamation or co-operation with the American competitors. As regards the negotiations with the Diamond Match Company, we learn that they are already proceeding. Mr. Johnson of the American firm in question, who is now in Kobe in connection with the present scheme, is said to be consulting with Messrs. Takigawa Gisaku and Kaneko Naokichi on the matter. On the other hand, there are some manufacturers who are opposed to the plan. They rather prefer amalgamation with the Chinese manufacturers or capitalists, on the ground that they must convert the pro-Chinese party to their side before they can expect to achieve success.

Japan Making Fertilizers.—The Japanese Government is fostering the domestic production of chemical fertilizers of all kinds, in order to increase the output of agricultural products. It is thought that in the near future Japan will be practically self-providing in this line, with the single exception of sodium nitrate, which is now brought direct from Chile, in Japanese steamers, to the amount of 60,000 tons annually. At present oil cake of various kinds is the principal fertilizer used in Japan.

Japanese Hemp Industry.—The progress of the Japanese hemp industry is described in the "Chugwai Shogyo Shimbun," which states that there is no comparison between its present and pre-war condition. The hemp industry was started about 30 years ago, but it was only after the Russo-Japanese War that its success appeared to be probable. The world war gave a further impetus to the development of the industry, and Japan began to export a large quantity instead of importing as she used to do before the war; the quantity exported in 1918 amounting to as much as Y.5,300,000. The Japanese hemp industry is now in possession of over 50,000 spindles, and the land used for the cultivation of the material is about 40,000 *cho*. The fibre is used for the manufacture of hemp goods, such as various goods for military use, rain coverings, bags, clothing, bedding, linen, mosquito nets, and also for mixed linen and cotton, and silk and hemp textiles—the weaving of which has shown much progress of late. Such being the case, so long as the European countries do not recover their superior producing power and start a severe competition with Japanese goods, the prosperity of the Japanese hemp industry may be counted on as certain. Therefore the prospects of the industry cannot but be regarded as, on the whole, bright, states this authority, though pessimistic views are held by some of the business men concerned.

Improving Water Wheels in Honan.—It is reported that the authorities in Honan have made an appropriation to make water wheels after the Japanese pattern, they being deemed better than the ones which the Chinese use.

COMMERCE

Furs from Manchuria.—Prior to the war, furs, skins, hides and other product of stock-farms in the Far East and Eastern Mongolia were shipped to Europe viâ Harbin by the Siberian Railway, whereas those produced at Ili, Hsinkiang, and Outer Mongolia were brought to Tientsin by way of Kalgan. But since the great upheaval in Russia and the clogging of the Siberian line, the production so far as Eastern Mongolia, Siberia, and North Manchurian regions are concerned, has come to be shipped to Mukden thence to be distributed in various directions, with the result that merchants now come from Tientsin and Harbin to make purchases at Mukden. It is said that the amount of trade during last year aggregated over 30 million yen, the details of which are as under:

Articles	Quantity Pieces	Value Yen
Sheep Skins	20,000	60,000
Horse Hides	100,000	800,000
Furs, Martin	2,000	14,000
Fox	300,000	750,000
Badger	300,000	390,000
Wild Cat	1,000,000	2,000,000
Squirrel	1,000,000	1,500,000
Turbakan	50,000	75,000
Hare	20,000	30,000
Cat	20,000	12,000
Dog	50,000	100,000
Bristles		6,000,000
Horse Tail		2,000,000
Other skins, wool, etc. ...		10,000,000

A New Korean Company.—The Toyo Bussan Kabushiki Kaisha (Oriental Products Joint-stock Company) has just been formed in Seoul with a nominal capital of two million yen. The company is organized by Koreans only. Mr. Kim Yunmyon as President and Mr. Kim Tongyun as Managing Director, and it is noteworthy on this account. The company will undertake business directly with Osaka and Shanghai in regard to the sale of Korean cotton cloths.

Proposed Tobacco Monopoly in Korea.—The "Keijo Nippo" (quoted by the "Seoul Press") learns that the Government-General has privately decided on enforcing in Korea a Government Monopoly for tobacco in 1920, and has incorporated in the Budget for next fiscal year estimates necessary to carry out the scheme. In Japan the cultivation of tobacco for private use is absolutely prohibited, but in Korea it will be allowed to the extent of 30 *tsubo* per household. Arrangements for the enforcement of the system will be started in April next year, should the scheme be approved by the Diet, to be put into practice in September, when abolition of the Custom dues will take effect. The Toa Tobacco Company and other tobacco companies in the peninsula will be bought out. The money needed for carrying out the plan, rather more than ten million yen, will be met by a public loan. By the enforcement of the monopoly system, the Government-General will lose between Y.2,300,000 and Y.2,400,000, through cancellation of the tobacco consumption tax, but this will be offset by the increase in revenue coming from the monopoly and leave a balance in favor of income to the amount of Y.1,000,000 or more. It may be mentioned in this connection that at present some 20,000 Koreans are cultivating tobacco for trade purposes and 1,000 dealing in leaf tobacco, while 500,000 Korean or thereabouts are cultivating the plant for domestic use.

Lacquer Trade at Changsha.—Lacquer marketed at Changsha, Hunan Province, China, is brought from Szechuan and Kweiyang Provinces during the months from August to December. Lacquer business men are grouped in two guilds, one made up of Kiangsi men and the other Hunan merchants. During the Manchu regime, the amount of lacquer traded at Changsha did not reach in value more than Tls. 40,000 a year, but since the establishment of the Republic it has been increasing at a rate of Tls. 7-80,000 a year, till now the figure stands close to Tls. 300,000. The article is likewise produced in Hupeh, but the amount is not much while the quality is inferior compared with the Szechuan and Kweichow product.

Co-Operative Societies of Siberia.—Latest reports from western Siberia indicate that the proposed Russian main union of all Russian co-operative unions has been successfully formed with Novo-Nicolaievsk as its headquarters. Nearly 1,000 consumers' societies, export and import firms and fishery and creamery organizations throughout the extent and breadth of Siberia thus co-operate with each other to their mutual advantage. Previous to its formation, there were 30 co-operative unions in Siberia, which handled the exportation of Siberian products, especially fats, eggs, cheese, wax, wool, hair, furs, leather and other noted native raw materials to foreign countries. The new union of the co-operative unions of Siberia has its own factories and workshops in Irkutsk, Nicolaievsk, Blogoveschensk, Vladivostok, Ekaterinburg and Harbin not to mention European Russia and all Allied Countries, so that it has a very fine future prospect.

Company Law in Korea.—It is reported in a Seoul dispatch to the "Jiji," says the "Japan Chronicle," that the Government of Korea intends to revoke the Company Law in force in the peninsula, and that preparations in this connection are actually proceeding. The law in question has hitherto been a deterrent factor in the formation of companies in Korea, as it requires the promoters to obtain the sanction of the Government first. Popular opposition raised against this law ever since its enactment has at last obtained favorable consideration of the authorities. It is expected that the rescission of the objectionable legislation will be realized in the course of the present month.

Japanese Trade with Britain.—In a discussion in the House of Commons, London, on the question of protection against unfair Asiatic competition Sir Auckland Geddes said that the imports of Japanese manufactures in June were valued at £700,000, in July at £600,000, in August at £430,000, and in September £1,000,000. The goods imported from Japan were mostly of a cheaper kind and the employment of British workers in their manufacture would be less profitable than the production of high-grade goods for export. The importation of cheap goods was the best way of recovering British trade and encouraging the export of superior goods. Sir Auckland added that legislation would be shortly introduced embodying the Government's complete trade policy as recently outlined by the Premier. This legislation might affect Japan in connection with certain proposed provisions.

HARBORS, DOCKYARDS, ETC.

Improving Yokohama Harbor.—A number of prominent business men in Yokohama are arranging to establish a Yokohama Pier and Warehouse Company, capitalized at Y.10,000,000. The promoters intend to reclaim a considerable tract of land from the sea off Koyasumachi, Yokohama. Besides building godowns on the reclaimed land, the promoters intend to erect breakwaters and piers and to provide other harbor equipment.

Nagasaki Habor Improvement Works.—A project is on foot at Nagasaki, Japan, in which local Government and business circles are interested, for the improvement of Nagasaki Harbor (the principal feature of which is the construction of piers and relaying of mooring buoys). A committee has been organized with the local Government official and business men for the execution of the enterprise, which greatly depends on the Government's support with State funds. The "Nagasaki Press" understands that the cost of the Nagasaki harbor improvement works was originally estimated at Y.1,500,000, of which the Government will contribute half. The actual expenses will be much larger probably than that, owing to the increase in the cost of materials and wages.

The Home Department has decided to include Y.7,000,000 in the budget for the next financial year to improve the harbors of Nagasaki and Nagoya. Work will commence on these improvements at the beginning of the next fiscal year.

Development of Huangshihchiang.—It is reported from Hankow that Huangshihchiang, the railhead of the line running to the Tayeh Mines, and quite noted for sesame oil and cotton, which are shipped therefrom in large quantities, is to be amalgamated with a place called Shihhuaiwa, about four miles below the river at an outlay of some $1,400,000. It is intended to build piers and a station, instal electric lights, telephones and rickshaws. The major portion of the required fund will be put up by the promotors, and the balance is to be offered for public subscriptions. When the plan matures, it will be submitted to the Board of Agriculture and Commerce, so that proper official protection can be obtained while the work is progressing.

Tsuruga Harbor.—Shipping men in Tsuruga, Japan, are urging that harbor improvements be undertaken. Some years ago the Railway Board, which owns the pier at the port, proposed to extend the pier and to undertake other improvement works at a cost of Y.1,500 000, but this task has not yet been taken in hand, says the "Japan Advertiser." The authorities at Tsuruga also organized a committee to study ways and means of improving the harbor, but this body also has not taken any action as yet. All this while the importance of Tsuruga as a foreign trade port has been increasing, and the necessity of improving the harbor has never been more strongly brought home to the persons concerned than at present. It seems that what requires improvement most urgently is the pier. This can only accommodate two ships of 2,000 tons each, while the harbor is so narrow that it cannot comfortably admit more than half-a-dozen ships.

Keelung Harbor to be Improved.—The harbor of Keelung is to be improved at a cost of Y.7,000,000 during the next seven years. At present the landing stages of the harbor can admit only 700,000 tons of goods, but the freight to be handled amounts to about 1,300,000 tons. As a result many ships are compelled to wait outside the harbor before their cargoes can be discharged. When the improvement program has been completed, the accommodation capacity of the water front will be increased to 2,500,000 tons from the present capacity of 700,000 tons, while the moorings in the harbor will be extended so that 25 ships, instead of 14 ships, as at present, can anchor at the same time.

AVIATION

Hydroplanes at Macao.—Macao has now six hydroplanes and it is announced that an enterprising resident, Capt. Ricou, will shortly place them on the Macao-Timor service.

Dissatisfaction in Japan.—At the time of the aerial mail flight between Tokyo and Osaka recently arranged by the Japanese Imperial Aviation Association great dissatisfaction was manifested by many people connected and unconnected with the Association about the general attitude of Lieut.-General Nagaoka, the President of the Association. The successful performance of the flight seems to have alleviated this discontent among them in no appreciable degree. On the night of November 9 a number of persons interested in Japanese aviation held a meeting at the Chuotei, Marunouchi, Tokyo. Among these present were Lieut.-General Inouye, Colonel Takagi, Major Sawayanagi, Mr. Ozaki and Mr. Goto, civil aviators. The management of the Imperial Aviation Association was freely denounced for its alleged neglect of duty and lack of sincerity. Lieut.-General Nagaoka of course bore the brunt of this sharp criticism, many urging the necessity of the General retiring from the Association to place the management in better hands. Among several resolutions unanimously adopted at the meeting, says the "Japan Chronicle," was one advising the General to retire and emphasising the importance of introducing a reform in the organization of the Imperial Aviation Association.

First Private Aeroplane Owner in Japan.—Mr. E. W. Frazar, managing director of Sale and Frazar, of Yokohama and Tokyo, brought three airplanes and an aviator with him recently from America. It is suggested that Mr. Frazar will use one of his machines to take him back and forth from his home in Yokohama to his office in Tokyo daily, a scheme he has long cherished.

Japanese Aviation Commission.—A Temporary Aviation Commission has recently been organized in Japan with Lieut.-General Yamanashi, the Vice-Minister of War, as Chairman. This Commission may well be regarded as a preliminary step to the creation of an Air Bureau, which the Government proposes to establish in the next fiscal year.

Tokyo to Osaka Flight.—The Japanese Imperial Aviation Association which successfully carried out the aerial mail flight a few days ago, has another plan for a return flight from Tokyo to Osaka and back without stopping. The first prize is Y.10,000, the second prize Y.8,000.

Japan and the Aeroplane Loan.—The loan recently concluded between the Chinese Government and Vickers, Ltd., of London, for the purchase of aeroplanes and development of aerodomes, etc., greatly agitated a section of the Japanese press. It is reported that the Japanese Minister at Peking lodged a protest against the loan on the ground that it contravened the Sino-Japanese Military Agreement, which provided among other things that all articles having direct or indirect bearing upon military works should be purchased from Japan. The Japanese authorities regard the aeroplanes under contract as military articles. Some time ago, says Osaka "Mainichi," an automobile loan was entered into between General Hsu, of China, and an American firm, but was cancelled as the result of a protest from the Japanese Government. This, of course, is not a statement of fact. A number of cars were purchased for the Mongolian expedition of General Hsu, but as his advisers had superstructures built which made the cars too heavy for their task the military endeavored to evade payment and threw the cars back upon the sellers.

ELECTRICAL ENTERPRISES

Tokushima Hydro-Electric Co.—The new shares of the Tokushima Hydro-Electric Company, in Shikoku, Japan, numbering about 18,000, will be put on the market for public subscription, to raise capital for the extension of its works.

Electrical Enterprises in Japan.—According to investigations made by the Japanese Department of Communications, says the "Japan Chronicle," the number of electric companies in Japan at the end of September stood at 745, capitalized at Y.837,895,527. Of these the companies supplying power or light alone numbered 653, capitalized at Y.440,061,559 and those running traffic business aggregated 42 with a capital of Y.500,329,470. As regards the companies carrying on the two businesses combined, they stood at 50 in number and Y.336,964,997 in capital.

Hydro-Electricity in Shikoku.—It is reported from Shikoku, Japan, that about a dozen leading business men of Shikoku are interested in a scheme for the promotion of a hydro-electric company to be called the Yoshinogawa Suiryoku Denki Kaisha. The name is derived from the fact that the company is going to utilize the water of the Yoshinogawa, running through the centre of the island, from which about 14,000 horse-power of current is expected to be produced. The capital is fixed at Y.10,000,000

Tokyo Co. Expanding.—The Tokyo Electric Light Company has decided to erect another power station on the river Sagami which when completed will bring up the total supply of power by the company to Tokyo to more than 10,000 kilowatts.

Shortage of Electric Power in Osaka.—Industrial companies in Osaka are threatened with a cessation of the supply of power at night, for the Osaka Electric Light Company announces that it cannot supply night power until further notice.

Hydro-Electricity Along the Yalu.—It is reported that a plan has recently been formed by Japanese capitalists to establish a hydro-electric company in South Hamkyorgdo. According to the report received, the company will be capitalized at ten million yen. The company will dig a canal, 3,200 yards in length, from a point on a tributary of the Yalu, to the River Namtai, thus causing a fall of 1,450 feet, with a generating capacity of forty thousand horse-power. The promoters are ready to start the company, as soon as official permission for establishment has been secured.

MINING

Light Railway for Shantung Mines.—The construction of a light railway to connect the coal mines at Tsuwen with Mingshai (Shantung) for the distance of 30 *li*, is now being carried out, says the "China Advertiser." It is said that the cost of construction is estimated at $120,000. When the line is completed, 40 coal trucks and 2 passenger cars will be operated twice a day from each terminus. The mine is reported to produce very good coal, a day's output amounting to over 1,000 tons.

Mineral Resources of Kwantung Leased Territory.—According to the report of the Dairen Civil Administration Office, the mining assets within the district under its jurisdiction are meagre. In 1918 the total output of asbestos was three tons, valued at Yen 225; the total output of lime was 1,439 tons valued at Yen 10,878; and that of iron was 48 tons worth Yen 480, making the total of 5,490 tons with the total value of Yen 11,583. There are still many unworked mines.

Anshanchan Iron Works.—According to the latest statistics published, the number of clerks employed at the Anshanchan Iron works totals 176 and amount of salaries and allowances comes up to a little less than Y.25,000 per month. 1,276 Japanese and 1,387 Chinese workmen are employed, to whom the Company is paying something like Y.3,218, more or less, a day.

Output of Iron in China.—According to investigations recently made, the amount of iron manufactured in China by modern processes totals four million tons a year, whereas three million tons are made under the old method, says the "China Advertiser." The following shows the estimated amount of iron ore at various mines in the Republic :—

(Unit : 1,000 tons.)

Mines	Estimated Amount of Ore Deposit.
Anshantien (Manchuria)	158,000 tons.
Penhsihu (Manchuria)	80,000 ,,
Chinlingchen (Shantung) ...	10-30,000 ,,
Fenghuanshan (Kiangsu) ...	30,000 ,,
Taochung (Anhui)	15-50,000 ,,
Takushan, Hsiaokushan (Anhui)	13,710 ,,
Tangliangshan (Anhui)	3,000 ,,
Ankingshan (Anhui)	60,000 ,,
Taipingshan (Anhui)	250 ,,
Tayeh (Hupeh)	43,000 ,,
Aocheng (Hupeh)	3,948 ,,
Chizushan (Hupeh) except 9 others...	17,150 ,,
9 Other mines (Hupeh)	9,740 ,,
Chengmenshan (Kiansi)	6,000 ,,
Ansi (Fukien)	100,000 ,,
Pantien (Fukien)	29,190 ,,

Reported Coal Ventures in China.—If the "Asahi" (Japan) is to be credited, says "Japan Chronicle," both British and American capitalists are now directing their earnest attention to the matter of investments in the Chinese mining industry. British eyes are said to be specially fixed upon coal mines. According to the "Asahi's" calculation, the coal output in Britain for this year is expected to witness a falling-off of about 10,000,000 tons, with deterioration in quality into the bargain. These considerations have caused British capitalists to consider the exploitation of coal mines in Hunan, Hupeh and Shantung provinces. Inasmuch, however, as means of transport in China are defective, a quick launching of their schemes in real earnest is considered out of the question. In the meanwhile, they are said to be making efforts to gain mining concessions in those territories. As for America, as a result of personal observations by Mr. Samuel Hill, a Director of the American Great Northern Railway Company, in China, in November last, some plan has been formed, and this gentleman, in consultation with Mr. Charles Schwab, has recently approached some influential Chinese and arranged for the acquisition of mining rights in Hupeh province. The Americans concerned in this scheme are reported to have some other projects of a similar nature in view for other districts.

New Coal Ventures in Japan.—Immediately following the announcement of a new coal-mining venture in Saghalien, another colliery project is reported in Yamaguchi Prefecture, Japan, where a group of local influential business men are hard at work for the flotation of a coal-mining company under the name of the Kamiokinoyama Tanko Kaisha, with a capital of Y.3,500,000. It is said that they have bought up an extensive tract of promising seams covering 2,000,000 *tsubo* approximately, in Ube in the same Prefecture. The "Japan Chronicle" is given to understand that the capital will be divided into 70,000 shares of which 5,000 to 7,000 shares are expected to be put on the market for public subscription.

CONSTRUCTION

Building Society for Penang.—A co-operative building society has been started in Penang. The object is to acquire land and provide dwellings for members which would become by an easy method of payment their own property.

O.S.K. Building at Kobe.—The Osaka Shosen Kaisha has decided to build its branch office buildings in a site recently secured by the company next to the Oriental Hotel in Kobe. It will be of reinforced steel, and will have seven stories, which will be higher than any other building in the city. Its basement and first and second floors will be used by the company while rooms on other floors will be rented. Construction work was to be started in November and be finished in two years at a cost of Y.1,000,000.

AGRICULTURE

Sino-Japanese Pasture in Manchuria.—The project of the Okura Gumi to create a big pasture under Sino-Japanese joint management at Chengchiatun is about to materialise. Baron Okura, representing the Japanese company, and General Chang, the Tuchun of Fengtien province, met on November 6 and the contract was signed between them on the occasion. The undertaking is capitalized at Y.6,000,000. The opening of markets at several places in East Mongolia is said to be contemplated by the same capitalists.

Hangchow Ramie Fibre.—Ramie produced in Hangchow District, especially at Chienchiao, Chiaochow, Linping, as well as in Kasing and Huchow Districts is designated by the natives as green, blue and yellow ramie. The total amount produced annually in these regions is estimated at 60,000 piculs, which are brought to Shanghai and shipped to Japan and other countries. The price of course varies from time to time, but at the place of production something like $6 per picul is thought to be normal.

Liquorice Produced in Mongolia.—The price of liquorice, the most important article produced in Mongolia, is, roughly speaking, wholesaled at Y.15 per 100 catties at Chengchiatun; Y20 at Mukden, Y.15 at Seoul and Y.30-35 at Osaka. At the place of production, however, it is "dirt" cheap, it being procurable at 2½-4 sen per catty or Y2.50-4.00 per 100 catties, nearly one-tenth of the price commanded at Osaka, the cost of transportation making it dearer the further it is carried away. The Mongolians know how to dig the liquorice, but do not know how to cultivate it, say the "China Advertiser." So the regions near Chengchiatun, where digging can be carried on with comparative ease, have all been denuded of the herb, and the natives are pushing further and further into the interior. But when they proceed too far northwest, it will not pay them to bring out the product, for the cost of transportation will come up higher than the market price at Chengchiatun.

FINANCIAL

Japan's Budget for 1920.—The total of the Japanese Budget for 1920 is Y.1,264,930,000, which exceeds the previous year's by Y.200,840,000. Expenditure is roughly as follows :—

Imperial Household Y.4,500,000; Foreign Office Y.11,000,000; Home Office Y.100,830,000; Financial Office Y.174,740,000; Army Office Y.375,730,000; Navy Office Y.308,940,000; Judiciary Office Y.31,710,000; Educational Office Y.41,300,000; Agricultural and Commercial Office Y.51,290,000; Communication Office Y.174,840,000.

New Chinese Bank.—The Overseas-Chinese Bank, Ld., was successfully inaugurated in Battery Road, Singapore, on October 1. The capital is S$20,000,000 in shares of $100 each, the issue to the public being 60,000 shares. The original subscribers are, according to the "Malaya Tribune," mostly well-known Chinese citizens of Singapore.

Minting in Japan.—The Japanese Mint reports that during October Y.14,692,340 worth of gold coins, Y.2,713,608.50 worth of 50 sen silver pieces, Y.114,641 worth of 10-sen silver coins, Y.318,303.55 worth of nickels, and Y.42,051.66 worth of one-sen brass pieces were produced by the Mint. It is stated that brass pieces will be soon put in circulation but silver pieces will be retained in official hands, because the price of silver is above the melting point.

New Bank of Manchuria.—The subscription for the shares of the Bank of Manchuria to be established at Dairen closed on October 30. It is said that the issue was over subscribed more than 2,000 times.

Yunnan Issues Gold Coins.—In order to make good the deficit in its provincial treasury, the Yunnan Provincial Government has issued a gold coin, its face value being equivalent to ten silver dollars. The new coin bears the likeness of General Tang Chi-yao and is claimed to be legal tender in Yunnan. It is said, writes the "Peking Daily News," that its intrinsic value is found to be so much inferior to its face value that enormous profits have been made by the Yunnan officials by issuing these coins. It is estimated that by turning one ounce of gold into such coins, the Yunnan officials make a profit of about twelve dollars.

Projected Sino-American Bank.—Mr. Hsu Unyuen, who has been visiting America in connexion with the formation of a Chinese-American Bank, arrived in Peking by special train on the morning of November 18, with Mr. and Mrs. Stone, Mr. and Mrs. Wiggin, Mr. and Mrs. Bruce, and Mr. Meyer, the American partners of the Chinese-American Bank. Mr. Stone is the head of the Hayden and Stone Company of Boston: Mr. Wiggin is the President of the Chase National Bank of New York; Mr. Bruce is the President of the Pacific Development Corporation of New York, and Mr. Meyer is the head of Messrs. Andersen, Meyer and Company of Shanghai.

Japanese Banks Merging.—According to the "Japan Advertiser" the Jugo Ginko, or 15th Bank, the Teiyu Bank in Tokyo, the Naniwa Bank in Osaka and the Kobe, Kawasaki Bank in Kobe are merging. It is authoritatively stated that the consolidated bank will have an authorised capital of Y.100,000,000. The Jugo Ginko, which will be the centre figure in this important financial merger, is one of the oldest banking establishments in Japan having been established 1876 or the year of the Satsuma rebellion. It holds the authorised capital of Y.40.000.000. Mr. Iwao Matsukata is its President. The Teiyu Bank is regarded as its auxiliary establishment, being placed under the control of Mr. Masayasu Naruse, Vice-President of the Jugo Ginko. The bank has an authorised capital of Y.5.000.000. The Naniwa Bank is also one of the leading banks in Japan and one of the biggest in Osaka, having an authorised capital of Y.15,000,000. It was also established in 1876 as one of the national banks. Mr. Masao Matsukata, one of the brothers of Mr. Matsukata's, is its President. The bulk of its shares is owned by Satsuma men. The Kobe Kawasaki Bank also belongs to the same group of financial houses. Its leading shareholders are Mr. Yoshitaro Kawasaki, Vice-President of the Kawasaki Dockyard Company, who is also the President of the bank, and the Teiyu Bank of Tokyo. It has its head office at Kobe and holds an authorised capital of Y.5,000,000.

After the amalgamation, which will legally take effect some time in March, the principal figures relating to the new bank will stand as follows: Capital Y.100,000,000; Paid up Y.49,750,000; Reserve Y.15,000,000; Deposits (approx.) Y.350,000,000.

Japan's Next Budget.—Japan's total expenditure for the next fiscal year is expected to reach Y.1,260,000,000, an increase of about Y.250,000,000 over that of the present financial year. Among the principal items contributing to this increase are the naval replenishment expenditure, involving Y.50,000,000, the military replenishment, amounting to Y.30,000,000, and the extension of the telegraph, telephone and other services, requiring Y.40,000,000. Increased expenditure arising from a grant of special allowances to Government officials also accounts largely for the expansion of the annual expenditure. The annual pay of the Government officials in Japan amounts to Y.110,000,000. The 50 per cent. allowances granted them some time ago increased this outlay by Y.55,000,000. Another addition at the rate of 20 per cent. which was recently made to the special allowances already paid to *hannin* officials has caused a further increase in the Government's outlay, amounting in round figures to Y.12,000,000. That the high prices of commodities have considerably expanded the expenditure of all the Departments need scarcely be said. The War Profits Tax has constituted one big source of revenue, but this must be abolished for the next fiscal year in consequence of the conclusion of peace. The deficit in this respect will amount to Y.80,000,000, and the Government proposes to inaugurate what it calls "the Excess Profit Tax," which is, to all intents and purposes, another form of the War Profits Tax. From this source the Government is hopeful of realising receipts of Y.60,000,000. As already reported, the Government intends to meet the increased expenditure for the next fiscal year largely by increased taxation. It also counts upon an automatic increase of Y.100,000,000 in the revenue, while a considerable surplus is looked for. It appears that by increasing the *saké* tax the Government proposes to gain an increased revenue of Y.30,000,000. From a revision of the Income Tax Law some Y.10,000,000 is expected to accrue additionally to the Government. How the Law will be revised, says the "Japan Chronicle," is a matter of much speculation, and it is admitted that in revising the Law the authorities have the enforcement of social policy more in view than the increase of revenue. The minimum amount of yearly income amenable to the Law is likely to be raised from the present Y.500 to Y.700, while allowances will be made for the size of the families in fixing the rate of taxation. From a revision of the Stamp Duty Law an increased revenue of some Y.15,000,000 is expected to be realised, and from the raising of the Postal and Telegraph charges an increased revenue of Y.15,000,000 is anticipated.

The Banque Industrielle de Chine.—The Peking Branch of the Banque Industrielle de Chine has received a telegram from Paris stating that the Bank's shares have been admitted to the Cote Officielle des Agents de Change de la Bourse de Paris (the Official Stock Exchange list) and that business was done at the price of 855 francs. Two months ago the Banque Industrielle's shares, the nominal value of which is 500 francs, were sold at 600 francs.

Italian Bank.—It is reported that the Italian Parliament has passed a bill providing a sum of 500,000 liras to be invested as the capital for the proposed Sino-Italian Bank.

Rateable Value of Hongkong.—The rateable value of Hongkong, according to a new assessment made by Mr. A. Chapman, the Government's Assessor, is now fixed at $15,638,736 to $16,304,801, being an increase of 47 per cent. in 10 years. Since he took office in 1889, the rateable value has increased by 396 per cent., a remarkable tribute to the development of a native colony under British rule. The surplus of revenue over expenditure in the current Budget amounts to $2,413,075.

Japan's Finances.—According to a report from the Japanese Finance Minister Japan's foreign obligations were outstanding to the amount of Y.1,311,137,726.38 at the end of October. During the month the total neither increased nor decreased. The total of Japan's domestic borrowings stood at Y.1,431,761,526.50 at the end of October against Y.1,431,756,126.50 at the end of September. Besides, there was the issue of Extraordinary Exchequer Notes outstanding to the amount of Y.513,266,975, which figure was an increase of Y.20,113,850 on last month.

Increase of Japanese Banking Capital.—There has of late been a growing movement on the part of the Japanese semi-official banks to increase their capital. It has alrealy been reported that the Yokohama Specie Bank has decided to increase its capital from Y.48,000,000 to Y.100,000,000. The Japan Industrial Bank is also experiencing a shortage of capital in view of the fact that a great deal of money has already been loaned because of the financial difficulties of many merchants contingent upon the peace slump; and it is said that the demand for loans is still increasing. The bank, therefore, is contemplating another increase of its capital. It is reported that the banks of Formosa and Korea are also in need of more funds, although they effected an increase of capital twice during the war by making calls on the old and new shares. These banks have made big loans to the merchants in Formosa, Korea and Japan proper. The Hypothec Bank of Japan is also hard pressed for funds, owing to the reduced capacity of issuing mortgage debentures caused by the previous large issues. It will have to increase its capital, therefore, by making a call of Y.125 per share on the new shares which are not fully paid-up.

The Yokohama Specie Bank has decided to establish a new branch at Rio de Janeiro and promote agencies in New York, Seattle, Buenos Aires, Calcutta, Rangoon, Singapore, Batavia, Sydney, Manila, Kaiyuan, Changchun, Harbin, Vladivostok, Shimonoseki, Tsingtao, and Tsinan.

Tsingtao Branch of International Bank.—The International Banking Corporation has opened a branch at Tsingtao. Mr. Richard Edison Shaw, who has lived in China for a long time, being the manager. At present, there is no American firm at Tsingtao except the Standard Oil Co. of New York, but Messrs. Andersen, Meyer & Co. will establish a branch shortly. The prospects of the bank is said to be very bright.

MISCELLANEOUS

Canton's New Streets.—Five new modern roads have been formally opened for traffic in Canton. The ceremonies, says the "Canton Times," took place at one o'clock, Dr. Wu Ting, breaking open the traffic on an automobile. The procession started at the Wing On Bridge. A long line of rickshas, carriages, pedestrians and other automobiles followed Dr. Wu's march through the streets as a fitting manifestation of Canton's future progress. The procession will herald the new day in the near future when automobiles will be as common in Canton as in any other large city, when people will ride in tramways to go from one end to another in the City on the Rams, and when wide streets and modern buildings will give Canton the appearance of a modern city, yet at the same time preserving unique and typical conditions which make of Canton a place of great attraction to the tourist. The names of the streets which were thus formally opened for traffic are Wing Hon South, Man Fook, Man Dak, Wei Oi, and Wing Hon roads.